ATTACHMENT A

PROJECTS CONSIDERED IN THE DEVELOPMENT OF THE NO-ACTION ALTERNATIVE

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The following projects were considered in the development of the No-Action Alternative. These projects were compared to the No-Action Alternative definition criteria. The projects which had proceeded into the design phase were compared to more specific criteria to determine if the projects should be assumed in the No-Action Alternative for the PEIS. The results of that analysis are presented in this attachment.

The reasons why the project was or was not included in the No-Action Alternative are summarized in Table A-1.

TABLE A-1

PROJECTS CONSIDERED IN THE NO-ACTION ALTERNATIVE

Agency	Project	Status in the No-Action Alternative
U.S. Bureau of Reclamation	Auburn Dam and Reservoir	Not included because incomplete environmental documentation
U.S. Bureau of Reclamation	Cache Creek Basin Study	Not included because project deferred
U.S. Bureau of Reclamation	Central Valley Fish and Wildlife Management Study	Not included because recommendations included in other studies
U.S. Bureau of Reclamation	Central Valley Project Operations, Total Water Management Study	Not included because recommendations included in other studies
U.S. Bureau of Reclamation	Colusa Basin Study	Not included because project deferred
U.S. Bureau of Reclamation	Contra Costa Pumping Plant Modifications	Not included because project included in CVPIA
U.S. Bureau of Reclamation	Enlarged Cross Valley Canal	Not included because project deferred
U.S. Bureau of Reclamation	Folsom-South and Lower American River Study	Not included because project being evaluated separately
U.S. Bureau of Reclamation	Friant Powerplants	Included
U.S. Bureau of Reclamation	Geothermal Investigations	Not included because project deferred
U.S. Bureau of Reclamation	Glenn-Colusa Irrigation District Fish Facility	Not included because project included in CVPIA
U.S. Bureau of Reclamation	Kellogg Unit Reformulation	Not included because project combined with other project
U.S. Bureau of Reclamation	Kesterson Reservoir Cleanup	Included
U.S. Bureau of Reclamation	Keswick Powerplant Enlargement	Not included because project deferred
U.S. Bureau of Reclamation	Lake, Yolo, Napa, and Solano Counties Water Study	Not included because project deferred
U.S. Bureau of Reclamation	Mid-Valley Canal (San Joaquin Valley Conveyance Project)	Not included because project not pursued
U.S. Bureau of Reclamation	New Melones Lake Resource Management Plan	Not included because project being evaluated separately
U.S. Bureau of Reclamation	Offstream Storage	Not included because project not pursued
U.S. Bureau of Reclamation	Red Bluff Diversion Dam Fish Passage Program	Not included because project included in CVPIA
U.S. Bureau of Reclamation	Refuge Water Supply Study	Not included because project included in CVPIA

TABLE A-1. CONTINUED

Agency	Project	Status in the No-Action Alternative
U.S. Bureau of Reclamation	Sacramento Basin Fish Habitat Improvement Study	Not included because project being evaluated separately
U.S. Bureau of Reclamation	Sacramento River Drainage and Seepage Utilization Study	Not included because project being evaluated separately
U.S. Bureau of Reclamation	San Luis Unit Drainage Plan	Included
U.S. Bureau of Reclamation	Shasta Lake Enlargement (Joint Project with California Department of Water Resources)	Not included because project being evaluated separately
U.S. Bureau of Reclamation	Shasta Temperature Control Device	Included
U.S. Bureau of Reclamation	Sites Reservoir	Not included because project deferred
U.S. Bureau of Reclamation	Sonora-Keystone Unit Studies	Not included because project deferred
U.S. Bureau of Reclamation	Spring Creek Toxicity Program	Included
U.S. Bureau of Reclamation	Stanislaus River Basin and Calavaras River Water Use Program	Not included because project not pursued
U.S. Bureau of Reclamation	Tracy Pumping Plant Improvements	Not included because project included in CVPIA
U.S. Bureau of Reclamation	Trinity River Restoration Program	Partially included
U.S. Bureau of Reclamation	Watsonville (Pajaro Valley Basin) Management Plan	Not included because project being evaluated separately
U.S. Bureau of Reclamation	Western Energy Expansion Study	Not included because project deferred
U.S. Bureau of Reclamation	West Sacramento Canals Unit	Not included because project deferred
U.S. Bureau of Reclamation	Whiskeytown Powerplant	Not included because project deferred
U.S. Bureau of Reclamation	Wind-Hydro Opportunities Study	Not included because project deferred
U.S. Fish and Wildlife Service Projects	Coleman Fish Hatchery	Partially included
U.S. Fish and Wildlife Service Projects	Stone Lakes National Wildlife Refuge	Partially included
U.S. Fish and Wildlife Service Projects	Upper Sacramento River Habitat Study	Not included because project combined with other project
U.S. Army Corps of Engineers	American River Watershed Investigation	Not included because project being evaluated separately
U.S. Army Corps of Engineers	Cache Creek Basin Study	Included
U.S. Army Corps of Engineers	Caliente Creek Feasibility Study	Not included because project being evaluated separately

TABLE A-1. CONTINUED

Agency	Project	Status in the No-Action Alternative
U.S. Army Corps of Engineers	Kaweah River Investigation	Not included because project being evaluated separately
U.S. Army Corps of Engineers	Lake Oroville Enhancement Study	Not included because project being evaluated separately
U.S. Army Corps of Engineers	Lower San Joaquin River and Tributaries Levees Improvements	Not included because project being evaluated separately
U.S. Army Corps of Engineers	Marysville Lake	Not included because project being evaluated separately
U.S. Army Corps of Engineers	Marysville-Yuba River Levees Study	Not included because project being evaluated separately
U.S. Army Corps of Engineers	Merced County Streams Study	Not included because project being evaluated separately
U.S. Army Corps of Engineers	Pine Flat Fish and Wildlife Restoration Project	Not included because project being evaluated separately
U.S. Army Corps of Engineers	Red Bank-Fancher Creek Study	Included
U.S. Army Corps of Engineers	Sacramento River Flood Control System Evaluation	Not included because project being evaluated separately
U.S. Army Corps of Engineers	Sacramento Metropolitan Area Flood Control Study	Not included because project being evaluated separately
U.S. Army Corps of Engineers	South Sacramento Streams Study	Not included because project being evaluated separately
U.S. Army Corps of Engineers	Yolo Bypass Westside Tributaries Study	Not included because project being evaluated separately
California Department of Water Resources Projects	Arroyo Pasajero (joint project with Reclamation)	Not included because project being evaluated separately
California Department of Water Resources Projects	Clear Creek Improvements	Included
California Department of Water Resources Projects	Coastal Aqueduct	Included
California Department of Water Resources Projects	Georgiana Slough Improvements	Not included because project being evaluated seperately
California Department of Water Resources Projects	Kern Water Bank	Included
California Department of Water Resources Projects	Los Banos Grandes Dam and Reservoir Study	Not included because project being evaluated seperately
California Department of Water Resources Projects	North Delta Water Management Program	Not included because project being evaluated seperately
California Department of Water Resources Projects	Old River Barrier (joint project with Reclamation	Included as temporary barrier
California Department of Water Resources Projects	Red Bank Dam Study (Cottonwood)	Not included because project deferred
California Department of Water Resources Projects	Sacramento-San Joaquin Delta Levees Subvention Project	Not included because project being evaluated separately

TABLE A-1. CONTINUED

Agency	Project	Status in the No-Action Alternative
California Department of Water Resources Projects	South Delta Program (joint project with Reclamation)	Not included because project being evaluated separately
California Department of Water Resources Projects	Suisun Marsh Protection Plan (joint project with Reclamation)	Included
California Department of Water Resources Projects	West Delta Water Management Program	Not included because project being evaluated separately
Local Projects	Anderson-Cottonwood Irrigation District Fish Passage	Not included because project included in CVPIA
Local Projects	Arvin Edison Water Storage District and Metropolitan Water District of Southern California	Not included because project being evaluated separately
Local Projects	Delta Wetlands	Not included because project being evaluated separately
Local Projects	East Bay Municipal Utility District Water Supply Study	Not included because project being evaluated separately
Local Projects	Fresno-Clovis Water Resources Master Plan	Not included because project being evaluated separately
Local Projects	Los Vaqueros Water Quality Project	Included
Local Projects	San Francisco Bay Area and San Joaquin Valley Water Reuse Project	Not included because project being evaluated separately
Local Projects	Upper American River Project	Not included because project being evaluated separately

AUBURN DAM AND RESERVOIR

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: American River Division

PROJECT DESCRIPTION:

The Auburn Dam and Powerplant would be constructed on the American River below the confluence of the Middle and North forks of the river. The project would provide 2.5 million acre-feet of capacity and 600,000 kilowatts (kW) of power generation capacity. Construction was authorized and funded for the keyway and foundation excavation in 1965. However, in 1975, after the Oroville Earthquake, construction activity was stopped and the dam safety evaluation was conducted. In 1980, the Secretary of the Interior determined that a dam could be safely constructed at the site, and recommended that the project be submitted to Congress for reauthorization. An Auburn Dam flood control facility was considered by Congress in 1996 and was not approved by a subcommittee in the House of Representatives. Congress has not taken further action.

PROJECT SCHEDULE: Project started in 1971.
Awaiting Congressional authorization.
Initiation of Folsom South Area Conjunctive Use Study, 1987.

PROJECT STATUS AS OF OCTOBER 30, 1992: Awaiting Congressional authorization.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Yes.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Yes.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Yes.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Yes.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: U.S. Department of the Interior, Budget Justifications, FY 1994.

CACHE CREEK BASIN STUDY

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Shasta Division

PROJECT DESCRIPTION:

The comprehensive plan for the development of the Yolo-Solano area is designed to assure the maximum beneficial use of the land and water resources in the area. The Yolo-Solano Development would serve all irrigable lands which could be reached economically, and would provide a municipal and industrial water supply for nearby urban areas. The Yolo-Solano Development would include multiple-purpose reservoirs on Cache Creek and Putah Creek. Additional water would be obtained from the Sacramento River, from the proposed West Sacramento Canals Unit.

PROJECT SCHEDULE: Project deferred.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project deferred.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Yes.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT TITLE 34? Yes.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Unknown.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Unknown.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES:

U.S. Army Corps of Engineers, Sacramento District. February 1979. Cache Creek Basin, California, Feasibility Report and Environmental Statement for Water Resources Development.

U.S. Bureau of Reclamation. May 1947. Yolo-Solano Development of the Comprehensive Plan for Central Valley Basin, California.

CENTRAL VALLEY FISH AND WILDLIFE MANAGEMENT STUDY

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: All of the CVP

PROJECT DESCRIPTION:

The purpose of this study was to develop a comprehensive baseline of information and possible solutions to complex and controversial water-related fish and wildlife problems in the Central Valley. The study provided a framework of guidelines to be used for future water development planning. The study area included both the Sacramento and San Joaquin Valleys and the Delta.

PROJECT SCHEDULE: Project started in the 1970s.
Reports completed in late 1980s.

PROJECT STATUS AS OF OCTOBER 30, 1992: Recommendations have been incorporated into ongoing programs.

WILL THE PROJECT IMPACT CVP OPERATIONS? The study provided a framework for future plans.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Not applicable.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Not applicable.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Not applicable.
Recommendations have been included in ongoing projects.

REFERENCES: U.S. Bureau of Reclamation, various reports.

CENTRAL VALLEY PROJECT OPERATIONS, TOTAL WATER MANAGEMENT STUDY

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: All of the CVP

PROJECT DESCRIPTION:

This project described the CVP facilities at two different levels of development. The first level included the facilities at the existing level of development. The second level identified the facilities at full authorization of the CVP, including uncompleted facilities (Sacramento Canals, Auburn-Folsom South, Folsom-Malby, Foresthill Divide, the San Felipe Division) and U.S. Army Corps of Engineers projects. The impact of these potential changes on the needs and objectives of the CVP and methods to satisfy these needs by changing CVP operations were compared to the base project accomplishments.

PROJECT SCHEDULE: Project started in the 1970s.
Reports completed in late 1980s.

PROJECT STATUS AS OF OCTOBER 30, 1992: Recommendations have been incorporated into ongoing programs.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes. The study focused on the addition of new facilities and re-operation of existing facilities. However, the specific impacts of these facilities or re-operation plans would be identified in subsequent site-specific documentation.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable. The study compared conditions between existing and full build-out conditions. Design of the individual projects included in the study would be individually authorized and funded.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Not applicable.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Not applicable.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No. Recommendations included in multiple ongoing projects.

REFERENCES: U.S. Bureau of Reclamation, various reports.

COLUSA BASIN STUDY

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Shasta Division

PROJECT DESCRIPTION:

The purpose of the project was to evaluate water quality in relation to standards for water supplies used by agriculture, municipal and industrial users, and fish and wildlife. The results of the study indicated that the water temperature was low for rice and may require warming basins. Several individual drainage flows had high boron concentrations, however boron concentrations in the Colusa Drain appeared to be appropriate. Turbidity in the drain also was high and could be harmful to fish in the canal. Finally, groundwater had high salinity concentrations and may not be ideal for municipal uses.

PROJECT SCHEDULE: The study was completed in the 1970s.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project deferred.

WILL THE PROJECT IMPACT CVP OPERATIONS? No. The purpose of the study was to identify water quality problems.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Not applicable.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Not applicable.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: U.S. Bureau of Reclamation, various reports.

CONTRA COSTA PUMPING PLANT IMPROVEMENTS

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Delta Division

PROJECT DESCRIPTION:

The Contra Costa Water District (CCWD) pumping plant diverts from 50 to 225 cfs from Rock Slough. The diversion is unscreened, and limited data are available to determine entrainment or predation losses. Rock Slough is relatively far from the main migration route of Sacramento River chinook salmon, but reverse flow conditions may bring salmon into the vicinity of the diversion.

The CCWD has proposed a monitoring program at Rock Slough to determine entrainment of Delta fish in the CCWD diversion, particularly Delta smelt and winter-run chinook salmon. The National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (Service) are currently evaluating the proposed program. Options to mitigate for fishery impacts resulting from Contra Costa Pumping Plant diversions could include construction of fish screening and salvage facilities, relocation of the intake, increasing nonconsumptive uses of diverted water, reoperation of the pumps to minimize fish impacts, implementation of compensation programs for fish losses, consolidation of diversions, development of offstream storage facilities south of the Delta, and development of a desalination plant to reduce Contra Costa Canal diversions.

Section 3406(b)(5) of CVPIA specifically requires Reclamation to develop and implement a program to mitigate for fishery impacts resulting from operation of the Contra Costa Pumping Plant. Reclamation and CCWD will jointly lead the implementation of this provision, with input from the Service, NMFS, and the California Department of Fish and Game (DFG).

PROJECT SCHEDULE: Project deferred.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project will be incorporated in implementation plans for CVPIA.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? No. Authorization for design was specifically provided in CVPIA.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No. Funding for design was specifically provided in CVPIA.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No. Included in the alternatives in the PEIS.

ENLARGED CROSS VALLEY CANAL

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Friant Division

PROJECT DESCRIPTION:

This project would provide water to Arvin-Edison Water Storage District from the Cross Valley Canal. The water would be provided in exchange for water from the Friant Kern Canal. The exchange water would be used by Fresno County, Tulare County, Hills Valley Irrigation District, Tri-Valley Water District, Lower Tule River Irrigation District, Pixley Irrigation District, Kern-Tulare Water District, Rag Gulch Water District, and Ducor Irrigation District.

PROJECT SCHEDULE: EIS completed in 1975.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project deferred.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes, if the Cross Valley Canal is enlarged, water would be provided to Arvin-Edison Water Storage District in exchange for water from the Friant-Kern Canal. This would impact the quantity of water that would be diverted through the San Luis Unit to the Cross Valley Canal. The exchange water would include 40,000 acre-feet of Class I water and 78,300 acre-feet of Class II water. This project also would require approval from the State Water Project for wheeling water to Cross Valley Canal through the California Aqueduct.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes. The final EIS was completed in May, 1975.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: U.S. Bureau of Reclamation, Final Environmental Impact Statement for Use of Central Valley Project Water through Enlarged Cross Valley Canal, 1975.

FOLSOM-SOUTH AND LOWER AMERICAN RIVER STUDY

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: American River Division

PROJECT DESCRIPTION:

Following construction of Folsom Dam and Reservoir, the California State Water Resources Control Board specified minimum flow standards for the American River. To maintain these minimum flows and meet the water demands of the American River Division, Reclamation evaluated several plans to provide water to the area located south of Sacramento. These alternatives were evaluated in an Environmental Impact Statement published in 1972 and supplemental EISs published in 1973, 1974, and 1975. The recommendations of the studies were to construct the Hood-Clay Connection, the Laguna Canal, and the Clay Station Reservoir. The canals would convey up to 1,100 cubic feet per second from the Sacramento River and the reservoir would store up to 150,000 acre-feet of water on Laguna Creek. These facilities would provide recreational and fish and wildlife benefits as well as water supplies.

PROJECT SCHEDULE: Project started in 1972. Supplemental EIS completed in 1975.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project deferred.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes. If the facilities are constructed, CVP operations in the Lower American River and Delta would be directly affected.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: U.S. Bureau of Reclamation, Supplementary EIS, November, 1975.

FRIANT POWERPLANTS

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Friant Division

PROJECT DESCRIPTION:

During the late 1970s, the Department of Interior was seeking means to supplement power production capabilities in the Western United States. Among the alternatives considered was the development or expansion of hydroelectric power generation capabilities at CVP dams. An appraisal study was completed in 1979 by the Water and Power Resources Service (currently Reclamation) describing the addition of three powerplants at Friant Dam. Plants would be constructed at the downstream discharge, at the Madera Canal discharge, and at the Friant Kern Canal discharge. It was estimated that the three plants would have a maximum electric power generation capacity of 22,500 kW, with a dependable capacity of 1,000 kW. These estimates were based on no changes to the operations of the dam, which include no downstream releases and no diversions to the canals for significant portions of the year. The plants were recommended for construction in 1979, but not authorized under CVP. The plants have been constructed with non-CVP funds. The plants include a 15,000 kW facility on the Friant Kern Canal, 2,000 kw facility on the San Joaquin River outlet, and a 10,000 kW facility on the Madera Canal.

PROJECT SCHEDULE: Facilities are completed.

PROJECT STATUS AS OF OCTOBER 30, 1992: Facilities are completed.

WILL THE PROJECT IMPACT CVP OPERATIONS? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Yes.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? YES.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Yes.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Yes.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Yes.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Yes.

REFERENCES: Friant Powerplants, An appraisal Report on Adding Hydroelectric Powerplants at Friant Dam, Water and Power Resources Service (Reclamation), December, 1979.

GEOTHERMAL INVESTIGATIONS

LEAD AGENCY: U.S. Department of Interior/Bureau of Reclamation

CVP SERVICE AREA: All of the CVP

PROJECT DESCRIPTION:

Under the Geothermal Steam Act of 1970, the Department of the Interior (DOI) identified candidate sites for the development of federally owned geothermal resources. The proposed action would involve the leasing of federally owned geothermal resources for the generation of electric energy. The DOI reviewed the potential for geothermal energy development in the United States. Approximately 1.8 million acres of federal lands were identified to have significant potential for geothermal resource development. The findings from the investigations, and a summary of leasing and operation regulations were presented in an Environmental Statement for the Geothermal Leasing Program in 1973. It was determined that the most promising prospects for geothermal power generation were in California.

PROJECT SCHEDULE: The project began in 1970.

PROJECT STATUS AS OF OCTOBER 30, 1992: Federal projects deferred.

WILL THE PROJECT IMPACT CVP OPERATIONS? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? NO.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Final Environmental Statement for the Geothermal Leasing Program, U.S. Department of Interior, 1973.

GLENN-COLUSA IRRIGATION DISTRICT FISH FACILITY

LEAD AGENCY: Multiple Federal and State Agencies and Glenn-Colusa Irrigation District

CVP SERVICE AREA: Shasta Division

PROJECT DESCRIPTION:

The effectiveness of the fish screens at the Glenn-Colusa Irrigation District (GCID) Hamilton City Pump Diversion has been substantially reduced by significant hydraulic changes in the Sacramento River that have lowered water depths at the screens. The low water depths have decreased the effective area of the screen surfaces and increased water velocity through the screens. These changes have resulted in impinging juvenile salmon and steelhead on the screens. The low water level also has reduced bypass flows which are used to return juvenile fish to the Sacramento River, and therefore, high predation by squawfish occurs.

A group of federal, state, and local agencies has been conducting investigations to solve the problems. These agencies include GCID, California Department of Fish and Game, California Reclamation Board, U.S. Fish and Wildlife Service, National Marine Fisheries Service, Reclamation, U.S. Environmental Protection Agency, and U.S. Army Corps of Engineers. These studies have identified six alternative improvements involving different configurations of screens, a fish bypass, river gradient restoration, and pumping facilities. The project has been divided into two parts; river gradient restoration and fish screen improvements. The river gradient restoration project is being led by the U.S. Army Corps of Engineers, while the fish screen improvements are being led by the California Reclamation Board.

As an interim measure, the existing screen structure has been upgraded to improve performance while the long-term solution is being developed and constructed.

PROJECT SCHEDULE: Project started in 1989 and is ongoing.

PROJECT STATUS AS OF OCTOBER 30, 1992: Feasibility studies for fish screen improvements were completed in 1990. Environmental assessment for river gradient restoration was completed by 1991.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly. If diversion patterns change, the CVP operations could be impacted.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Yes. Design is proceeding. However, CVPIA authorizes Reclamation to participate in this on-going project, specifically for the replacement of defective fish screens and fish recovery facilities associated with the Hamilton City Pumping Plant.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Partially. Funding for design of gradient restoration in the Sacramento River is provided by the U.S. Army Corps of Engineers. Funding for design of the fish screens and fish handling facilities is provided for in CVPIA.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Yes.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Partially. Funding for design of gradient restoration in the Sacramento River is provided by the U.S. Army Corps of Engineers. Funding for design of the fish screens and fish handling facilities is provided for in CVPIA.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes. Environmental studies were completed in 1991.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No. Only interim measures have been implemented. Portions of the project specifically addressed in CVPIA incorporated into the alternatives.

REFERENCES:

Glenn-Colusa Fish Screen Improvement. GCID Fish Screening Alternatives, Task B2.3., 1993.

Glenn-Colusa Fish Screen Improvements. Technical Memorandum Task B7.3. Evaluation of Technical Alternatives, 1993.

Ben Pennock, (GCID). September 1993. Personal Communication.

KELLOGG UNIT REFORMULATION STUDY

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Delta Division

PROJECT DESCRIPTION:

The Kellogg Unit Reformulation Study was conducted in cooperation with DWR and the Contra Costa Water District (CCWD). The original Kellogg Unit studies proposed relocating the Contra Costa Canal intake and constructing and offstream reservoir on Kellogg Creek as a means of resolving water quality and reliability problems in the Contra Costa Canal service area. The Kellogg Unit Reformulation Study, as described in the 1988 project Draft EIS, addresses only relocation of the canal intake.

Construction of an offstream storage reservoir was addressed in a separate investigation. The Reformulation Study identified and evaluated six alternatives for changing the canal intake from Rock Slough to another location. The recommended plan, as presented in the draft EIS, would relocate the canal intake from Rock Slough to the Clifton Court Forebay and construction of an open, concrete-lined canal (the Highline Canal) and a 500 cfs pumping plant. The CCWD has conducted a separate evaluation under its Los Vaqueros Project and has proposed a different recommended alternative, including construction of an offstream storage reservoir, construction of associated canals and pipelines, and construction of a new intake and pumping plant on Old River for reservoir uses.

PROJECT SCHEDULE: August 1988 - Draft EIS prepared for Kellogg Reformulation Study. No further study.

PROJECT STATUS AS OF OCTOBER 30, 1992: The Kellogg Unit Reformulation Study was authorized by Public Law 96-375, October 3, 1980. The Contra Costa Water District has since undertaken a portion of the project as part of the Los Vaqueros Project.

WILL THE PROJECT IMPACT CVP OPERATIONS? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No. The EIS was not finalized because CCWD was proceeding with the Los Vaqueros Project.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Planning Report Draft EIS Kellogg Reformulation Study, August 1988.

KESTERSON RESERVOIR CLEANUP

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: West San Joaquin Division

PROJECT DESCRIPTION:

The Kesterson Reservoir became the terminus of the San Luis Drain when construction of the Drain was halted because of funding limitations and disagreements over the potential environmental impacts of drainwater discharge into the Delta (the original terminus of the San Luis Drain). Selenium from the drainwater has contaminated the Reservoir sediments, vegetation, and groundwater, as well as San Luis Drain sediments. Discovery of high selenium and other trace element concentrations in the San Luis Drain and Kesterson Reservoir necessitated studies to identify the source and containment/treatment methods to reduce risk of environmental damage.

In 1985, the State Water Resources Control Board directed Reclamation to submit a plan to clean up the San Luis Drain and Kesterson Reservoir. A project-wide environmental impact statement was filed in 1986 for closure of the San Luis Drain and Kesterson Reservoir. Initially, the ephemeral pool areas were filled. A monitoring/evaluation program is currently underway.

PROJECT SCHEDULE: Initial study completed in 1986. Ephemeral pools filled.

PROJECT STATUS AS OF OCTOBER 30, 1992: Ongoing monitoring studies.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes, as related to the San Luis Drain that may be operated by the CVP.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Yes.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Yes.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Yes.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Yes.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Yes.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Yes. The filling of the ephemeral pools should be included in the No-Action Alternative. The provision of alternative drainage solutions are considered to be in future projects.

REFERENCES:

U.S. Bureau of Reclamation, Mid-Pacific Region, in cooperation with U.S. Fish and Wildlife Service and U.S. Army Corps of Engineers. October 1986. Final Environmental Impact Statement, Kesterson Program.

KESWICK POWERPLANT ENLARGEMENT

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Shasta Division

PROJECT DESCRIPTION:

The Keswick Dam, reservoir, and powerplant are located on the Sacramento River nine miles downstream of Shasta Dam. The reservoir serves as an afterbay for releases from the Shasta and Spring Creek Powerplants. During the late 1970s and early 1980s, Keswick Powerplant was operating at 90,000 kw, which is above the rated capacity of 75,000 kw. The Keswick Powerplant Enlargement project considered increasing the power generation capacity at Keswick Dam by constructing a 15,000 kw powerplant, below the existing powerplant. After preliminary evaluation, it was concluded that the cost-benefit ratio of the project was unfavorable. No environmental impact analysis or financial feasibility studies were conducted.

PROJECT SCHEDULE: An appraisal study of the power generation capabilities was completed in 1982.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project deferred.

WILL THE PROJECT IMPACT CVP OPERATIONS? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? NO.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Keswick Powerplant Enlargement, Central Valley Project, Concluding Report, U.S. Department of Interior, Bureau of Reclamation, February, 1982.

LAKE, YOLO, NAPA, AND SOLANO COUNTIES GROUNDWATER STUDY

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Shasta Division

PROJECT DESCRIPTION:

This project assessed groundwater conditions (Lake, Yolo, Napa, and Solano counties) under five development scenarios. This study is related to the West Sacramento Canal Unit Study, which evaluated potential construction of reservoirs and conveyance facilities to serve Yolo and Solano counties. The purpose of this study was to evaluate potential impacts to groundwater resources under alternative development scenarios.

The study recommended further studies to estimate groundwater pumpage rates, surface water diversions, average well production rates, and costs for using groundwater. The study also recommended expansion of groundwater elevation monitoring program throughout the entire study area, expansion of the groundwater quality monitoring program into the Lower Napa Valley to determine the extent of seawater intrusion, and revision of groundwater maps based on the expanded monitoring program.

PROJECT SCHEDULE: Initial study completed in 1975.

PROJECT STATUS AS OF OCTOBER 30, 1992: Projects deferred.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Not applicable.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Not applicable.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: U.S. Bureau of Reclamation, Four Counties Study, April 1975.

MID-VALLEY CANAL (SAN JOAQUIN VALLEY CONVEYANCE PROJECT)

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: East Side Division

PROJECT DESCRIPTION:

The Mid-Valley Canal would be a major conveyance structure of the East Side Division in the San Joaquin Valley. The canal would convey CVP water to serve portions of Merced, Madera, Fresno, Kings, and Tulare counties, and by exchange, furnish a water supply to Kern County. Water also would be provided to three national wildlife refuges and two state wildlife management areas. The project also would include a wellfield in the Sacramento Valley near wetlands to provide up to 170,000 acre-feet of water, and canals to deliver water from the Kings River and the Cross Valley Canal to the Friant Kern Canal.

PROJECT SCHEDULE: Project deferred.

PROJECT STATUS AS OF OCTOBER 30, 1992: The Mid-Valley Canal was authorized for study by the Federal reclamation laws, Act of June 17, 1902, 22 Stat. 388 and acts amendatory thereof or supplementary thereto. According to the report Preface, plans for the Mid-Valley Canal were made based on a CVP water supply which is no longer available due to Delta outflow requirements. No Federal action is contemplated until a feasible water supply is located.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Mid-Valley Canal, East Side Division, A Report on the Mid-Valley Canal Feasibility Investigation, Reclamation, January 1981.
San Joaquin Valley Conveyance Study Summary Report, 1990.

NEW MELONES LAKE RESOURCE MANAGEMENT PLAN

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: East Side Division

PROJECT DESCRIPTION:

Reclamation is prepared a Resource Management Plan (RMP) for New Melones Lake. This effort involved gathering existing natural, cultural, and social resource data and entering it into a geographic information system. Based on the data, sensitivity zones were developed and alternatives configured. Management strategies were developed to address the management of the natural resources, recreational conflicts, archaeological resources, caves, lake level fluctuation, and grazing leases.

PROJECT SCHEDULE: Environmental Impact Statement completed in 1995.

PROJECT STATUS AS OF OCTOBER 30, 1992: Implementation ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No. Final environmental documents will be completed.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

OFFSTREAM STORAGE

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: All of the CVP

PROJECT DESCRIPTION:

This project evaluated several reservoir sites in the western San Joaquin Valley to store water during the winter when high water flows occurred in the Delta. The water was to be stored in the reservoir for use in the summer months when water quality restrictions reduced the amount of water that could be diverted from the Delta. The study also considered water storage on wetland habitat to both increase wetland water supplies in the winter and to provide offstream storage. The study indicated that offstream storage would require extensive dam facilities to be constructed. The study also indicated that wetland habitat constraints would result in relatively large habitat losses as compared to the volume of stored water. In addition, seepage could account for over 50 percent loss of stored water at existing habitat sites.

PROJECT SCHEDULE: Studies completed in late 1980s.

PROJECT STATUS AS OF OCTOBER 30, 1992: No further study.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Not applicable.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Not applicable.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: U.S. Bureau of Reclamation, Offstream Storage Study Evaluation of Wetland Habitat for Offstream Storage.

RED BLUFF DIVERSION DAM FISH PASSAGE PROGRAM

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Shasta Division

PROJECT DESCRIPTION:

A coordinated effort between Reclamation, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Game, this program was initiated to address fish passage problems at the Red Bluff Diversion Dam (RBDD). Adverse effects of RBDD on upstream migrating adult and downstream migrating juvenile anadromous salmonids are being identified, and alternatives to reduce these impacts are being developed. An appraisal report identified four reasonable alternatives, including two pumped diversion plans and two ladder replacement/improvement plans. A two-year research facility was installed to evaluate potential improvements for fish passage problems at the RBDD.

PROJECT SCHEDULE: Project initiated in 1989.

PROJECT STATUS AS OF OCTOBER 30, 1992: Research study, financial plan, public workshops, regional economic analysis and Plan Formulation Working Document are ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? NO.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: U.S. Bureau of Reclamation, Appraisal Report Red Bluff Diversion Dam Fish Passage Program, February 1992.

REFUGE WATER SUPPLY STUDY

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: All of the CVP

PROJECT DESCRIPTION:

Reclamation, assisted by U.S. Fish and Wildlife Service and California Department of Fish and Game, conducted the Refuge Water Supply Study. The study identified potential water sources and delivery systems to provide dependable water supply to 10 national wildlife refuges, 4 wildlife management areas, and private wetlands within the Grasslands Water District. The study identified four levels of water supply: 1) Level 1 was the firm amount of water provided under existing water rights or contracts; 2) Level 2 was the average amount of water that the refuges had received for approximately 10 years; 3) Level 3 was the amount of water that would be required for full development of lands that were currently being managed; and 4) Level 4 was the amount of water that would be required for full development of the land within the 1988 refuge boundaries.

PROJECT SCHEDULE: Refuge Water Supply Study completed in 1989 and updated in 1992.

PROJECT STATUS AS OF OCTOBER 30, 1992: Implementation and water management plans being developed.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? NO.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Level 2 Water Supply from existing sources will be included in the No-Action Alternative because it represents the average amount of water provided to the refuges from 1974 through 1983. No new conveyance or delivery facilities will be assumed in the No-Action Alternative.

REFERENCES: U.S. Bureau of Reclamation, Report on Refuge Water Supply Investigations, March 1989.

U.S. Bureau of Reclamation, Draft Refuge Water Supply Study, Plan Coordination Team Report, July 1992.

SACRAMENTO BASIN FISH HABITAT IMPROVEMENT STUDY

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Shasta Division

PROJECT DESCRIPTION:

Reclamation initiated the Sacramento Basin Fish Habitat Improvement Study, a four-year study that will further investigate temperature improvement measures for the upper Sacramento and Trinity Rivers. The study will evaluate a full range of management options including both structural and operational measures for the Shasta/Trinity River Division facilities of the CVP.

PROJECT SCHEDULE: Study initiated in 1991.

PROJECT STATUS AS OF OCTOBER 30, 1992: Study ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? NO.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES:

U.S. Bureau of Reclamation, Appraisal Report Red Bluff Diversion Dam Fish Passage Program, 1992

Planning Report/Final Environmental Statement. Shasta Outflow Temperature Control, 1991.

SACRAMENTO RIVER DRAINAGE AND SEEPAGE UTILIZATION STUDY

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Shasta Division

PROJECT DESCRIPTION:

The study area extends from Stony Creek to Suisun Bay with the Colusa Basin and the Sacramento River the primary areas of concern, totaling 575,000 irrigable acres. The study evaluated alternatives to alleviate seepage and drainage problems caused by water imports through the Tehama-Colusa Canal and limited capacity of the Colusa Basin Drain. Ten alternatives were evaluated. Seven were not economically justified. One alternative addressing extension of the Colusa Basin Drain appeared economically justified if the drain water supply could be delivered to Solano County for reuse. Project feasibility investigations continued under the Solano County Water Project feasibility study. The study also recommended formation of a regional drainage entity and rerouting drainage flows from the Tehama-Colusa Canal back to existing drain and canal facilities.

PROJECT SCHEDULE: Reclamation Studies began in 1977.

PROJECT STATUS AS OF OCTOBER 30, 1992: Feasibility authorization not sought. Reclamation encouraged local planning agencies to resolve drainage problems.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly. Operations of the Tehama-Colusa Canal could be impacted by re-routing of return flows.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Summary Information From Past Sacramento River Drainage and Seepage Investigations, October 1976.

Sacramento River Drainage and Seepage Utilization Working Document, February 1977, Reclamation.

Sacramento River Drainage and Seepage Utilization Investigation, California, Appraisal Report, June 1980, Reclamation.

SAN LUIS UNIT DRAINAGE PLAN

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: West San Joaquin Division

PROJECT DESCRIPTION:

Reclamation prepared a plan to collect, treat as necessary, and dispose of 60,000 to 100,000 acre-feet of subsurface drainwater from Westlands Water District. Reclamation prepared a comprehensive plan for all five districts in the Unit: Westlands Water District, Panoche Water District, San Luis Water District, Broadview Water District, and Pacheco Water District. Reclamation completed a plan and a draft environmental impact statement (EIS) in December 1991. The study determined that, using current technology and given environmental restrictions, there exists no financially feasible way to treat and dispose of 60,000 to 100,000 acre-feet of highly saline drainwater. Therefore, the recommended plan included a combination of measures to reduce subsurface drainage, control releases of drainwater to the San Joaquin River, and continue development of potential treatment technologies.

Highlights of the plan included:

- A land retirement program to remove about 57,000 acres of drainage-affected land from production.
- A program to market up to 220,000 acre-feet of water from the drainage-affected area. This program would encourage voluntary land retirement, conservation, and groundwater pumping to lower water tables.
- Facilities to control the quantity and timing of drainwater releases to the San Joaquin River.
- Continued research and development of agriforestry and other drainage treatment and disposal technologies.

The plan was successfully challenged by Westlands Water District as not meeting the requirements of the court judgment. As of October 1992, the EIS had not been finalized and the plan had not been adopted, although negotiations continue regarding possibly implementing certain portions of the plan.

The Department of Water Resources has initiated a program to retire approximately 45,000 acres of land identified under this program which have been served by the State Water Project.

PROJECT SCHEDULE: Draft EIS prepared.

PROJECT STATUS AS OF OCTOBER 30, 1992: Plan not formally adopted.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes. The project could change the volume and quality of return flow to the San Joaquin River. However, most of the return flows from the land under study do not flow to the San Joaquin River.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? NO.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? That portion of the land retirement program that involves funding from Department of Water Resources is included in the No-Action Alternative. The remaining portion of the land retirement program is addressed in the CVPIA and is included in the PEIS alternatives.

REFERENCES:

U.S. Bureau of Reclamation. San Luis Unit Drainage Program Draft EIS. December, 1991.

U.S. Bureau of Reclamation. San Luis Unit Drainage Program Plan Formulation Appendix. December, 1991.

SHASTA LAKE ENLARGEMENT

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Shasta Division

PROJECT DESCRIPTION:

An investigation was conducted between 1980 and 1985 by Reclamation and the California DWR to determine the feasibility of enlarging Shasta Dam and Reservoir. The investigation was not completed. The project could increase Shasta storage by 9,750,000 acre-feet, and develop an incremental CVP yield of 1.45 million acre-feet per year at a cost of $1.4 billion dollars (1978 prices).

PROJECT SCHEDULE: Feasibility studies were started in 1980.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project not completed.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes. More storage volume would be provided in Shasta Lake.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: U.S. Bureau of Reclamation, 1993. Draft Report on Assessment of Past MP-Region, Bureau of Reclamation Planning Activities Involving New Water Supplies, pp 20-22.

SHASTA TEMPERATURE CONTROL DEVICE

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Shasta Division

PROJECT DESCRIPTION:

The project would consist of construction of a shutter device attached to the upstream face of Shasta Dam. The shutter device would provide the capability to selectively control water withdrawals from Shasta Lake over a wide range of depths and temperatures. The project would allow release of cool water to benefit winter-run chinook salmon in the Sacramento River during their spawning and incubation cycles. The device also would allow for the continuation of hydropower generation, and allow release of warmer waters when water temperatures are not critical. This operation pattern would conserve colder water for more critical time periods. The device also could be used for selective withdrawal to control turbidity and dissolved oxygen concentrations.

Reclamation operated under an interim plan since 1987 to protect the winter-run chinook salmon. The interim measure consists of a partial release from Shasta Lake at an outlet that is located lower than the Shasta Powerplant intake. The released flows bypass the Powerplant, which results in losses in power and energy production. Foregone energy costs have totaled about $11.5 million/year between 1987 and 1991. Since 1991, foregone energy have averaged over $8 million per year.

In May, 1990, the State Water Resources Control Board issued Decision 90-05, which defined temperature and flow requirements in the Sacramento River downstream of Shasta Dam. This decision also required that the Shasta Temperature Control Device be installed by December, 1992. The date for required installation was amended to December, 1994 in Decision 91-03.

PROJECT SCHEDULE: Project started in 1988.
Design completed in 1993.
Construction started in 1994.
Construction completed in 1997.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project complete.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes. The project will provide the capability to selectively control water withdrawals from Shasta Lake for the benefit of chinook salmon and to re-establish power generation to pre-1987 levels.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Yes. Authorization in the Reclamation States Emergency Drought Relief Act of 1991 (PL 102-250, Section 303).

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Yes. Authorization in the Reclamation States Emergency Drought Relief Act of 1991 (PL 102-250, Section 303).

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Partially. The States Emergency Drought Relief Act of 1991 (PL 102-250, Section 303) authorized construction of the facilities needed to attach the device to the dam. This authorization was limited to $12 million. The remaining facilities were authorized in CVPIA. It appears reasonably certain that the remaining portion of the project would have been authorized by Congress. This project was included in legislation prior to CVPIA, however the legislation was not enacted.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Partially. The 1991 Record of Decision proposed a cost-sharing plan of 75 percent by the Federal government (50 percent reimbursable, 25 percent non-reimbursable) and 25 percent by the non-Federal entities. As discussed above, partial Federal funding was provided by proposed legislation (PL 102-250). It appears reasonably certain that Congress intended to construct a temperature control device for Shasta Dam and that the funding for the Federal share would have been approved. The reimbursable Federal share costs would be allocated in accordance with the most current CVP Cost Allocation Study. If Congressional funding had not been forthcoming, Western Area Power Administration power customers had indicated a willingness to fund the project.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes. The Record of Decision was signed on August 26, 1991.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Yes.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Yes. It is reasonably certain that the temperature control device would have received Congressional authorization and funding without CVPIA. Congress had authorized construction of the hangers. It is reasonable to believe that Congress would not have funded the hangers if full authorization was not anticipated. In addition, the temperature control device needed to be installed to comply with the Winter-Run Chinook Salmon Biological Opinion and the State Water Resources Control Board Decision 91-03.

REFERENCES:

U.S. Bureau of Reclamation file documents
Shasta Outflow Temperature Control Record of Decision, July 1991.

SITES RESERVOIR

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: West Sacramento Division

PROJECT DESCRIPTION:

Sites Reservoir was proposed as an off-stream pumped storage reservoir along the Tehama-Colusa Canal, as part of the West Sacramento Canals Unit. The reservoir would be located on Funks and Stone Corral Creeks, upstream of Funks Reservoir. Sites Reservoir would have a gross storage capacity of over 1.2 million acre-feet and would be created by Golden Gate and Sites dams. The reservoir would be used for offstream storage of Sacramento River flows to allow expansion of the Tehama-Colusa Canal service area. The reservoir would inundate Antelope Valley from about 2 miles north of the Glenn Colusa County line to about 5.5 miles south of the town of Sites, including the town of Sites. The reservoir pumping and power plants would be integrated into the CVP.

PROJECT SCHEDULE: West Sacramento Canals Unit Reformulation Study completed in 1981.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project deferred.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes. Sites Reservoir would provide additional off-stream storage capacity in the Sacramento Valley, require power to operate the pumps, and generate power.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: U.S. Bureau of Reclamation, West Sacramento Canal Unit Feasibility Studies for Water Supply Development, 1962.

U.S. Bureau of Reclamation, West Sacramento Canal Unit Reformulation Plan, Concluding Report, 1981.

SONORA-KEYSTONE UNIT STUDIES

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: East Side Division

PROJECT DESCRIPTION:

The project would consist of development of the Sonora-Keystone Unit of the CVP to utilize available stream flows from the South Fork of the Stanislaus River, North Fork of the Tuolumne River, and Sullivan Creek. The multi-purpose project would include construction of the Brownes Meadow Reservoir, enlargement of the Phoenix Reservoir, and use of the existing Lyons Reservoir. The project would be constructed to meet the existing and proposed needs of agriculture and municipal, industrial, and recreation uses in Tuolumne County. The first stage of the project would develop 30,000 acre-feet of water with a yield of 13,700 acre-feet for municipal and industrial purposes, and 16,700 acre-feet for irrigation requirements to serve 4,860 acres of irrigable land. Stage 2 would involve construction of a second system of reservoirs and pipelines to meet projected water needs to 2020.

The project was authorized under the Federal Reclamation Laws, including the Act of September 7, 1966, 80 Stat. 711. Total construction costs of the project were estimated to be $48.4 million in 1971 with an additional cost of about $4.1 million to provide recreation facilities under agreement with the U.S. Forest Service. The benefit cost ratio for construction of the Stage 1 facilities was favorable, 1:27 to 1:00 in 1971. The benefit cost ratio for the Stage 2 construction also was favorable, although not detailed.

PROJECT SCHEDULE: Feasibility Report prepared September 1971.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project deferred.

WILL THE PROJECT IMPACT CVP OPERATIONS? No. Construction of the proposed project would not affect existing CVP operations because it would develop a separate CVP unit within Tuolumne County and would utilize those water resources, not existing CVP sources or systems.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Sonora-Keystone Unit, A Report of the Feasibility of Water Supply Development, Proposed September 1971.

SPRING CREEK TOXICITY PROGRAM

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Shasta/Trinity River Divisions

PROJECT DESCRIPTION:

The project would raise the existing Spring Creek Debris Dam by 125 feet. The purpose of the enlarged dam is to increase the capacity of Spring Creek Reservoir, thereby reducing the number of uncontrolled releases of acid mine drainage during rainfall events into Keswick Reservoir and the Sacramento River.

This project is one of many remedial actions that are being completed to clean up the Iron Mountain Mine site. Other remedial actions that have been implemented at the site include: copper cementation plants, the construction of Spring Creek Debris Dam in 1963, the 1980 Memorandum of Understanding between the U.S. Bureau of Reclamation, State Water Resources Control Board, and California Department of Fish and Game, a partial cap above Richmond Mine, remediation at Minnesota Flat, the by-pass diversions on Slickrock Creek and Spring Creek.

PROJECT SCHEDULE: The Environmental Analysis completed in July 1993.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? No. The project would reduce the number of uncontrolled releases of acid mine drainage into Keswick Reservoir and the Sacramento River, and which may reduce the potential need to release CVP water to dilute pollutants.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Yes.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT TITLE 34? Yes.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Yes.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Yes.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Permit and approval process ongoing.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Yes. Include facilities in operation or under construction in 1992.

REFERENCES:

U.S. Environmental Protection Agency, Public Comment, Remedial Investigation Report, Boulder Creek Operable Unit, Iron Mountain Mine, May 1992.

U.S. Bureau of Reclamation., July 1993. Final Draft Iron Mountain Mine, Spring Creek Debris Dam Enlargement Environmental Analysis. Prepared for the U.S. Environmental Protection Agency.

STANISLAUS RIVER BASIN AND CALAVERAS RIVER WATER USE PROGRAM

LEAD AGENCY: U.S. Bureau of Reclamation/California Department of Water Resources

CVP SERVICE AREA: East Side Division

PROJECT DESCRIPTION:

Reclamation and DWR conducted a joint study for the long-term uses of groundwater and surface water resources in the Stanislaus and Calaveras River basins. The objective of the study was to formulate a plan for increasing and optimizing water supply for the long-term use by fish, wildlife, agriculture, municipal, and recreation. A conjunctive use plan was considered to manage both the groundwater and surface water supplies to meet the current and future in-basin and out-of-basin needs.

Reclamation has a long-term firm contract with the Central San Joaquin Water Conservation District (CSJWCD) to provide a firm supply of 49,000 acre-feet. In a Record of Decision by the Commissioner of Reclamation in 1981, this quantity was estimated to be the available remaining firm yield after meeting the projected Stanislaus River Basin water needs for the year 2020. In addition to this firm supply contract, Reclamation also has committed 75,000 acre-feet and 31,000 acre-feet interim supply to the Stockton East Water District (SEWD) and CSJWCD, respectively. This water is scheduled to be delivered through the Farmington Canal, as well as other facilities. It is anticipated that the available interim water supply will gradually decrease as development increases in-basin requirements. Minimum downstream flows and water quality requirements also will reduce the available water.

In 1995, DWR decided to not participate in the program further because it did not appear that the program would provide additional water to the SWP. In addition, Reclamation was addressing the issues associated with the Calaveras and Stanislaus river basins in the American River Water Resources Investigation, New Melones Water Management Study for Short-Term, and the New Melones Water Management Study for Long-Term. Therefore, in 1996, a Transition Report was completed and a Notice of Cancellation was filed.

PROJECT SCHEDULE: Notice of Cancellation was filed in 1996.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project terminated.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes. The flow regime that is recommended by the study may change release requirements from New Melones Reservoir to satisfy instream flow requirements in the Stanislaus River and the south Delta, and to meet water quality requirements for the San Joaquin River at Vernalis. In addition, demands for in-basin water rights will be more accurately defined and met prior to export of water stored in the basin.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Stanislaus River Basin and Calaveras River Water Use Program Scoping Report, January 1991.

Program Participation Meeting handouts provided June 1993.

TRACY PUMPING PLANT IMPROVEMENTS

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Delta Division

PROJECT DESCRIPTION:

The Tracy Pumping Plant exports up to 4,600 cubic feet per second (cfs) of water from the South Delta to the Delta Mendota Canal. The pumping plant has a fish collection facility to divert and salvage fish that could be entrained in the pumping plant. The facility has been in operation since 1957. Salvaged fish are trucked to a point outside of the influence of the pumping plant. The initial studies anticipated that 90 percent of the fish would be salvaged. However, actual salvage values are less than anticipated, especially for striped bass.

To reduce fish losses, Reclamation and the California Department of Fish and Game have entered into a cooperative agreement. The agreement addresses operations with respect to channel velocities and screen bypass operations, fish collection and holding tank operations, fish hauling operations, and fish counting and monitoring methods. Both agencies are participating in studies to develop long-term solutions to improve fish survival. The studies address alternative pumping operations, predator management, screen-water alternatives, and other alternatives.

PROJECT SCHEDULE: Project ongoing.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: U.S. Bureau of Reclamation and Department of Fish and Game, Agreement to Reduce and Offset Direct Fish Losses Associated with the Operation of the Tracy Pumping Plant and the Tracy Fish Collection Facility, 1992.

TRINITY RIVER RESTORATION PROGRAM

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Trinity Division

PROJECT DESCRIPTION:

Passage of the Trinity River Basin Fish and Wildlife Restoration Act (PL 98-541) in October 1984 provided for a 10-year program to restore fish and wildlife resources to pre-CVP levels. The program is legislated to continue until 1995. Major features of the program include construction of Buckhorn Dam, a sediment control facility, modernizing the Trinity River Fish Hatchery, habitat improvement projects in the Trinity River and its tributaries, and watershed stabilization projects to reduce sedimentation of streams. The project is being completed with the assistance of a Task Force consisting of representatives from 14 federal, state, and county entities and the Hoopa Valley Indian Tribe. Construction of the CVP Trinity River Division facilities resulted in the loss of about 20,000 acres of deer habitat and over 100 miles of salmon and steelhead habitat. The purpose of the program is to mitigate these losses.

PROJECT SCHEDULE: Restoration Program ongoing.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes. The project has the potential to change releases from the Trinity Division reservoirs to the CVP.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? Partially, for initial projects. The Trinity River Division was authorized by The Trinity River Act of 1955. The Trinity River Basin Fish and Wildlife Management Program Act (PL 98-541) authorized the execution of 11 action items to restore fish and wildlife to historic levels in the Trinity River Basin. Plans have been developed to extend the program for 5 years beyond the 1995 completion date. However, this action would require an Act of Congress. Under mandate of a Secretarial Decision of January 1981, the Fish and Wildlife Service is conducting an instream flow study of the Trinity River.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Partially, for initial projects.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Partially, for initial projects.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Partially, for initial projects.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? A Final EIS was filed for the Trinity River Basin Fish and Wildlife Management Program by the U.S. Fish and Wildlife

Service in 1983. An EIS for the Trinity River Restoration Program will be prepared following completion of the ongoing studies.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Partially, for initial projects.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Include only projects that have been implemented as of January 1994.

REFERENCES:

Klamath and Trinity River Restoration Initiatives, April 1993.

U.S. Bureau of Reclamation, Status of the Trinity River Restoration Program, August 1990.

WATSONVILLE (PAJARO VALLEY BASIN) MANAGEMENT PLAN

LEAD AGENCY: U.S. Bureau of Reclamation and Pajaro Valley Water Management Agency

CVP SERVICE AREA: San Felipe Division

PROJECT DESCRIPTION:

A Basin Management Plan was developed to address seawater intrusion from Monterey Bay into the coastal aquifer of the Pajaro Valley. Ongoing projects include development of a data management system (DMS), a Pajaro Valley Groundwater-Surface Water Finite Element Model, and evaluation or over 30 supplemental water supply sources and demand management measures, and an evaluation of future water needs. A final draft Best Management Plan (BMP) was prepared in September 1993. A key element of the BMP calls for importation of 12,400 acre-feet of CVP water through the San Felipe Division.

PROJECT SCHEDULE: Project ongoing.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? No. The project was authorized by Reclamation in 1964 for the study of options to deliver CVP water to the agency via the San Felipe Unit. However, Reclamation has notified the Agency that the project may require reauthorization.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Pajaro Valley Water Management Agency, Basin Management Plan and related previous studies, September 1993.

WESTERN ENERGY EXPANSION STUDY

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Westwide Reclamation Service Area throughout 17 Western States

PROJECT DESCRIPTION:

A study was conducted to identify and evaluate opportunities for increased electrical power and energy generation in the 17 western states. The study focused primarily on the development of hydropower, including pumped storage. Thirty four hydro-electric projects were identified, of these three were within the California, Mid-Pacific Region; Monticello Powerplant, Whiskeytown Power Plant, and Friant Power Plant. Other projects evaluated with the Mid-Pacific Region included San Luis Solar Generation Study, Pumped Storage Inventory Study; and Upgrading of the Trinity Generator and Turbine, Carr Turbine, Spring Creek Generator and Turbine, Keswick Turbine, Shasta Turbine, and Folsom Turbine.

The study was authorized by Public Law 94-180, Fiscal Year 1976 Public Works Appropriations Act. The benefit cost ratios for the Monticello, Whiskeytown, and Friant powerplant improvements were favorable, ranging from 1.74 to 1.92 to 1.00. Ratios for the other projects were not provided.

PROJECT SCHEDULE: Study prepared in February 1977.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project deferred.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Report on the Western Energy Expansion Study, February 1977.

WEST SACRAMENTO CANALS UNIT

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: West Sacramento Division

PROJECT DESCRIPTION:

The West Sacramento Canals Unit, as initially proposed in 1964, would extend the CVP service area into Yolo and Solano counties. Water would be provided through an extension of the Tehama-Colusa Canal, and the addition of several facilities including: Sites Reservoir and pumping/generating plant, Oat Reservoir, Noonan Reservoir, Middletown Reservoir, and the West Sacramento Valley, Yolo-Zamora and Lake Solano Canals.

To accommodate the increased flow requirements, the portion of the Tehama-Colusa Canal south of Funks Reservoir would be redesigned and re-aligned. Sites Reservoir would be constructed on Funks Creek upstream of Funks Reservoir, and would be operated as a pumped storage off-stream reservoir. The Tehama-Colusa Canal would be extended from Bird Creek to Oat Creek, and would discharge into Oat Reservoir, which would serve as a regulating reservoir providing flow control to the West Sacramento Valley Canal, and the Yolo-Zamora Canal. Noonan Reservoir would be constructed at the terminus of the West Sacramento Valley Canal, and would be operated as an en-route regulating reservoir if a deferred use reach of the canal was constructed at a later date.

The formulation of the unit was revised in 1969, when three alternatives including the option described above, widening of the Tehama-Colusa Canal throughout the entire length, and adding a new point of diversion in the Sacramento River to serve the Yolo-Zamora and West Sacramento Valley Canal. The recommended alternative was similar to the original configuration, but Noonan Reservoir was renamed to Cannon Reservoir.

In 1977, when construction of the Tehama-Colusa Canal was nearing completion, the West Sacramento Valley Canals Unit was reformulated. The reformulation plan included larger reservoir sizes at Sites, Oat and Noonan. A preliminary cost/benefit analysis, presented in a 1981 report, indicated that the West Sacramento Canals Unit was not economically feasible at that time.

PROJECT SCHEDULE: Project deferred.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project deferred.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes. If constructed, the West Sacramento Canals Unit would affect the quantity of water diverted at Red Bluff Diversion Dam, increase the off-stream storage capacity in the Sacramento Valley, expand the CVP service area to Yolo and Solano counties, increase power requirements, and increase power generation capacity.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES:

West Sacramento Valley Canals Unit Formulation Plan, Reclamation, 1964.

West Sacramento Valley Canals Unit Revised Formulation Plan, Reclamation, 1969.

West Sacramento Valley Canals Unit Reformulation Plan, Concluding Report, Reclamation, 1981.

WHISKEYTOWN POWERPLANT

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Trinity Division

PROJECT DESCRIPTION:

During the late 1970s, the Department of the Interior was seeking means to supplement power production capabilities in the Western United States. Among the alternatives considered was the development or expansion of hydroelectric power generation capabilities at CVP dams. An appraisal study was conducted by the Water and Power Resources Service (currently Reclamation) describing the addition of a powerplant at Whiskeytown Dam. The plant would have a maximum electric power generation capacity of 3000 kw. Due to the proximity of Whiskeytown Dam to other CVP hydroelectric generation facilities, it would be possible to provide a dependable capacity of 2700 kw. These estimates were based on no changes to the operations of the dam. The plant was recommended for construction in 1979, but has not been authorized to date. The City of Redding operates a powerplant on Whiskeytown Reservoir.

PROJECT SCHEDULE: Project deferred.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project deferred.

WILL THE PROJECT IMPACT CVP OPERATIONS? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: U.S. Water and Power Resources Service, Whiskeytown Powerplant, An Appraisal Report on Adding Hydroelectric Powerplants at Whiskeytown Dam, 1979.

WIND-HYDRO OPPORTUNITIES STUDY

LEAD AGENCY: U.S. Bureau of Reclamation

CVP SERVICE AREA: Mid-Pacific Region

PROJECT DESCRIPTION:

Study was conducted to identify opportunities to integrate wind and hydroelectric power generation in the Mid-Pacific Region. Siting and power studies were to be evaluated for the Sacramento-San Joaquin Delta and in the vicinity of San Luis Reservoir. If the study proceeded to the demonstration phase, results would be monitored to determine the benefits and costs attributed to wind power generation and the effect, if any, on the CVP's dependable power generation capacity. Three general areas were proposed for power generation studies; the Delta between Carquinez Straits and Fairfield, the vicinity of Altamont Pass near Livermore, and the vicinity of Pacheco Pass. These areas have since been developed for wind power generation.

PROJECT SCHEDULE: February 1977 - Report prepared.
January 25, 1979 - Capability Study submitted.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project deferred.

WILL THE PROJECT IMPACT CVP OPERATIONS? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: A Proposal for a Study on Wind-Hydro Opportunities in the Mid-Pacific Region, California, April 1978.

COLEMAN FISH HATCHERY IMPROVEMENTS

LEAD AGENCY: U.S. Bureau of Reclamation/U.S. Fish & Wildlife Service

CVP SERVICE AREA: Shasta/Trinity Division

PROJECT DESCRIPTION:

Coleman National Fish Hatchery (NFH) was constructed in 1942 as part of the mitigation measures to preserve significant runs of chinook salmon affected by construction of Shasta Dam. This hatchery is co-operated with a fish trapping operation at Keswick Dam. Since the construction, the effectiveness of the hatchery has been impacted due to a variety of problems. The problems include deterioration of existing facilities, disease, poor water quality, inadequate water supply, inadequate pollution abatement facilities, and insufficient holding and rearing space. The operation of the Keswick fish trap has been impaired by flows that commonly occur during the late fall and winter chinook salmon runs.

Four plans were proposed by the U.S. Fish & Wildlife Service to salvage the runs of the Sacramento River salmon blocked by Shasta Dam. The plans were analyzed and one plan was recommended for implementation: The Sacramento River, Battle Creek, Deer Creek Plan. Under the plan it is anticipated that the fall-run chinook could be held in the main stem Sacramento River by racks to encourage natural spawning. Excess fish would be trapped and taken to the hatchery facilities on Battle Creek. Spring-run chinook salmon would be trapped and transferred to suitable tributaries, such as Deer Creek, for natural spawning, and to Battle Creek for artificial propagation at the Coleman NFH.

Recently the Service has revised its production and operating objectives for the facilities. The facilities are also old and in need of rehabilitation and replacement. The proposed new program for the facility would improve the facilities to meet the objectives for disease control, temperature controls, and optimization of production goals. The plan recommends construction or rehabilitation of water supply systems, water treatment facilities, water temperature control facilities, pollution abatement facilities, a feed storage building, and additional pre-release ponds. In addition the Battle Creek fish barrier dam would be reconstructed.

PROJECT SCHEDULE: January 1989 report prepared by the Resources Agency, Upper Sacramento River Fisheries and Riparian Habitat Management Plan, recommended implementation of the proposed plan. The proposed plan has nine construction phases to be implemented over a five year period.

PROJECT STATUS AS OF OCTOBER 30, 1992: Some project elements have been implemented.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes. The project would not affect the volume of CVP diversions, but would affect the operation of the fish hatchery and would increase the volume of flow-through or non-consumptive water needed for hatchery operations.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? Partially. Design of facilities, except for the Keswick Dam fish trap facilities, has been completed by the Service under the Coleman Development Plan.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Partially. Design of facilities, except for the Keswick Dam fish trap, has been completed by the Service.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? No.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? No.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Upper Sacramento River Fisheries and Riparian Habitat Management Plan, Resources Agency, January, 1989.

STONE LAKES NATIONAL WILDLIFE REFUGE

LEAD AGENCY: U.S Fish and Wildlife Service

CVP SERVICE AREA: Delta Division

PROJECT DESCRIPTION:

The Stone Lakes Wildlife Refuge (SLWR) project consists of the establishment of an 18,000 acre National Wildlife Refuge in southwestern Sacramento County. The SLWR would be established through the acquisition of lands and the co-management of land with other agencies or private landowners. The overall goals of the proposed land acquisition for the SLWR are: to preserve, enhance, and restore Central Valley plant communities and wetlands; assist in the recovery of special status species; create a linkage between refuge habitats; and provide for environmental education. The project began with land acquisition. As land is acquired, design and construction of the refuge will be completed.

PROJECT SCHEDULE: In the Late 1980s, the Stone Lakes Refuge Alliance was formed. In 1988, Congress approved funding for the Service to begin planning and coordinating SLWR. The DEIS was issued in May 1991, and the final EIS and LPP were issued in April 1992.

PROJECT STATUS AS OF OCTOBER 30, 1992: Land acquisition has been implemented. Design plans are being developed.

WILL THE PROJECT IMPACT CVP OPERATIONS? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable. A land protection plan (LPP) was prepared in conjunction with the final EIS. The purpose of the LPP was to identify specific tracts of land included within the acquisition boundary and to describe how and why each tract should be protected. The LPP also identifies acquisition and protection priorities, and parcel ownership acreages.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable. Funding for the SLWR will come from the California State Legislature and the U.S. Congress. Other primary sources for funding SLWR acquisition projects are the Migratory Bird Conservation Fund, Land and Water Conservation Fund, and North American Wetlands Conservation Fund.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes. The FEIS has been filed and the Record of Decision completed.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No. Environmental permits and approvals will be issued only as required in support of design and construction plans.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Yes.

REFERENCES:

Final Environmental Impact Statement, Stone Lakes National Wildlife Refuge, Department of Interior, U.S. Fish and Wildlife Service, Pacific Region, May, 1992.

UPPER SACRAMENTO RIVER HABITAT STUDY

LEAD AGENCY: U.S. Fish and Wildlife Service/U.S. Bureau of Reclamation

CVP SERVICE AREA: Delta Division

PROJECT DESCRIPTION:

The Upper Sacramento Fisheries and Riparian Habitat Advisory Council was established in 1986 by Senate Bill 1086. The bill called for preparation of a management plan to protect, restore, and enhance the fish and riparian habitat and associated wildlife of the upper Sacramento River. A report of the Council's findings was prepared by the Resources Agency and presented in 1989. A development plan presented in the report identified two action items to protect and restore riparian habitat and 20 action items to resolve fishery problems along the on the main stem of the Sacramento River and its tributaries. Proposals included in the plan range from clean-up of the Iron Mountain Mine near Redding and reconstruction of the Coleman National Fish Hatchery to construction of fish ladders and screens on tributary streams. Collectively the 20 fishery action items are called the Fisheries Restoration Plan.

PROJECT SCHEDULE: A January 1989 report prepared by the Resources Agency, Upper Sacramento River Fisheries and Riparian Habitat Management Plan, recommended implementation of the proposed plan.

PROJECT STATUS AS OF OCTOBER 30, 1992: Some projects described in the Plan have been implemented by the U.S. Fish and Wildlife Service.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes. The project could impact CVP operations by changing the point, volume, or scheduling of diversions to meet the goals of the plan.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? Not applicable. Design of some facilities is authorized by State of California legislation.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable. Funding for some projects may become available from the appropriation of State funds and funds provided by passage of voter propositions.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Include only projects that have been implemented by the Service by 1992.

REFERENCES: Upper Sacramento River Fisheries and Riparian Habitat Management Plan, Resources Agency, January 1989.

AMERICAN RIVER WATERSHED INVESTIGATION

LEAD AGENCY: U.S. Army Corps of Engineers

CVP SERVICE AREA: American River Division

PROJECT DESCRIPTION:

The study is addressing flooding and flood control problems in the American River Basin. The study focused on the levees near the Natomas area of Sacramento, Folsom Dam and levees downstream of the Dam, and the reach of the river above Folsom Dam near the City of Auburn where flood storage could be added (i.e., the proposed Auburn Dam site). Flood control alternatives include increased storage, raising levees, provide detention basins, re-operating Folsom Dam for flood control, constructing Auburn Dam, and improving levee stability along the American River. An Auburn Dam flood control facility was considered by Congress in 1996. It was not approved by a subcommittee in the House of Representatives.

PROJECT SCHEDULE: A preliminary report and environmental impact statement were completed in 1991.

PROJECT STATUS AS OF OCTOBER 30, 1992: A Final EIS was transmitted to the COE Chief of Engineers in 1996, and is still awaiting the final selection of alternatives and completion of the Record of Decision.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes. All alternatives being considered would change operations on the American River.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? In 1996, Congress authorized $65 million of flood control facilities that are common with all alternatives considered by the COE.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? A Final EIS was transmitted to the COE Chief of Engineers in 1996, and is still awaiting the final selection of alternatives and completion of the Record of Decision.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: U.S. Army Corps of Engineers, American River Watershed Investigation, Feasibility Report, December 1991.

CACHE CREEK BASIN STUDY

LEAD AGENCY: U.S. Army Corps of Engineers

CVP SERVICE AREA: Shasta Division

PROJECT DESCRIPTION:

The Cache Creek Settling Basin was constructed in 1937 as part of the Sacramento River Flood Control Project, authorized by the Flood Control Act of 1917, and modified by the Acts of 1928, 1937, and 1941. The settling basin is bounded by levees on all sides and covers approximately 3,600 acres. The purpose is to preserve the flood capacity of the Yolo Bypass by entrapping heavy sediments carried by Cache Creek. The levees of the settling basin were modified several times in the past.

The authorized plan of improvement consists of enlarging and raising the existing perimeter levees of the Cache Creek Settling Basin an average of 12 feet to provide 50 years of sediment storage capacity and enlarging existing levees of the settling basin upstream to County Road 102. The Cobble Weir would also be reconstructed and enlarged. The existing training levees would be degraded and rebuilt adjacent to the western perimeter levee. Also, the entire 3,600 acres within the basin would be purchased in fee, and a National Wildlife Refuge would be established.

The project has been constructed as proposed, with the exception of establishment of a National Wildlife Refuge. The Corps did not implement the refuge and requested that the Service implement the refuge. The USFWS recommended that the Corps pursue refuge implementation with the non-federal sponsor in a letter dated May 21, 1986. The non-federal sponsor has not expressed interest in implementing this feature. The recommended plan does not include a wildlife refuge.
S
PROJECT SCHEDULE: The project has been constructed without the refuge.

PROJECT STATUS AS OF OCTOBER 30, 1992: The project has been constructed.

WILL THE PROJECT IMPACT CVP OPERATIONS? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? A resolution was passed by the Committee on Public Works, House of Representatives, June 19, 1963.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT TITLE 34? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? This project was authorized for construction by the Water Resources Development Act of 1986, Public Law 99-662, November 17, 1986. The project was authorized substantially in accordance with the plans and subject to the conditions recommended in "Cache

Creek Basin, California: Report of the Chief of Engineers", dated April 27, 1981 (House Document No. 98-134).

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes. The Record of Decision for the Final EIS was filed on November 8, 1983.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Yes.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Yes.

REFERENCES:

U.S. Army Corps of Engineers, Sacramento District. Design Memorandum No. 1. Cache Creek Basin, California, Cache Creek Settling Basin. Final General Design Memorandum. January 1987.

U.S. Army Corps of Engineers, Sacramento District. Cache Creek Basin, California, Feasibility Report and Environmental Statement for Water Resources Development. February 1979.

CALIENTE CREEK FEASIBILITY STUDY

LEAD AGENCY: U.S. Army Corps of Engineers/Kern County Flood Control District (KCFCD)

CVP SERVICE AREA: Friant Division

PROJECT DESCRIPTION:

This project, funded 50 percent by Federal Funds and 50 percent by KCFCD, is to determine the feasibility of locating and sizing new levees to protect the towns of Arvin and Lamont, California from flooding. Levee alignment is critical to the analysis of the project due to the flow splitting required around the towns, while maintaining a consistent and reasonable levee height. Detention ponds (or sump ponds) are required downstream of the towns to dampen and delay the flood crest in downstream structures.

PROJECT SCHEDULE: The hydraulics report is scheduled for completion in November, 1993. A reconnaissance report is anticipated in April, 1994. This will summarize utilities relocations, cost estimates, and U.S. Fish and Wildlife planning actions. In addition, an EIS will be in progress by April, 1994.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Paul Bowers, Corps of Engineers, October 1993, Personal Communication.

KAWEAH RIVER INVESTIGATION

LEAD AGENCY: U.S. Army Corps of Engineers

CVP SERVICE AREA: Friant Division

PROJECT DESCRIPTION:

This project is intended to provide improved flood protection and to develop additional irrigation water for the area. The scope includes raising the height of the Terminus Dam, and improvements to flood protection structures in the area of the town of Visalia. The project is currently in the feasibility phase. This includes a gross appraisal of the economic viability of the project, with a consideration of general fish and wildlife requirements. The principal sponsor locally is the Kaweah Delta Conservation District of Tulare County.

PROJECT SCHEDULE: Feasibility report will be completed in 1994.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Perry Metzker, Corps of Engineers, October 1993, Personal Communication.

LAKE OROVILLE ENHANCEMENT STUDY

LEAD AGENCY: U.S. Army Corps of Engineers

CVP SERVICE AREA: Sacramento River Division

PROJECT DESCRIPTION:

The project is currently in the implementation phase and is in response to FERC requirements for the Lake Oroville/Thermalito facilities. The purpose of the project is to improve the recreation and fishing benefits to the Oroville and Thermalito areas. The study has been completed and provides suggested activities for enhancement. Implementation and funding of the activities is to be done by the local agencies involved in the FERC licensing of the Oroville/Thermalito facilities. Most activities are not connected with water releases from the facilities, but rather relate to fish planting, bike trails, and other user related improvements.

PROJECT SCHEDULE: Project ongoing.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? The project is primarily for enhancement of the project area and does not directly affect water releases from the Oroville/Thermalito facilities; it is not expected to impact CVP operations.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No. The project is being developed on a phased basis, with environmental documentation being prepared separately for each phase.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Bellory Fong, October 1993, Personal Communications.

LOWER SAN JOAQUIN RIVER AND TRIBUTARIES LEVEES IMPROVEMENTS

LEAD AGENCY: U.S. Army Corps of Engineers

CVP SERVICE AREA: Friant Division

PROJECT DESCRIPTION:

The Federal government completed a levee improvement program along the San Joaquin River from the confluence with the Tuolumne River to the Merced River by 1972. The State of California evaluated improvement of the river channel upstream of the confluence with the Merced River. The proposed project was to construct the Eastside and Chowchilla Bypasses to divert flood flows at Gravelly Ford. The project is being completed in four phases.

PROJECT SCHEDULE: Project ongoing.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: U.S. Army Corps of Engineers, Clearing and Snagging Project, San Joaquin River and Tributaries. January 1987.

MARYSVILLE LAKE

LEAD AGENCY: U.S Army Corps of Engineers, Sacramento District

CVP SERVICE AREA: Shasta Division

PROJECT DESCRIPTION:

The Marysville Lake project includes the development of a reservoir and power generation plants on the Yuba River in the lower Yuba River basin. Marysville Lake would be created by construction of a dam on the Yuba River at Parks Bar, approximately 15 miles upstream from Marysville, an afterbay dam 3 miles downstream from the Yuba River Dam, and a dam on Dry Creek. This pumped-storage project includes provisions for hydroelectric power generation, water conservation, flood control, recreation, and fishery enhancement.

A 420-foot high concrete gravity dam with earth abutments would be located on the Yuba River, and a 360-foot high earthfill dam would be located on Dry Creek. A powerplant would be constructed downstream of the Yuba River dam with one turbine and two pump-turbines having a total capacity of 1,350 MW. The powerplant would be designed to accommodate two additional pump-turbines which would increase the total power generation capacity to 2,250 MW. Water would be released through the main powerplant to produce power during peak demand hours when electrical needs are the greatest. When power demand is low, the pump-turbines would pump water from the afterbay to the lake so that the water could be reused for power production. An afterbay dam would be used to re-regulate releases from the main powerplant. Water releases through the powerplant would be a multiple-level temperature control intake structure at the Yuba River dam. A small baseload powerplant would be constructed downstream of the afterbay dam, including two turbines with an installed capacity of 15 MW.

The impoundment would inundate the existing Englebright Dam on the Yuba River and two powerplants, the PG&E Old Narrows Powerplant the Yuba County Water Agency (YCWA) New Narrows Powerplant. The Yuba River arm of Marysville Lake would extend upstream to immediately below the existing YCWA Colgate Powerplant of the New Bullards Bar project. The Colgate Powerplant would be modified by construction of a tailwater depression system.

When completed, the overall project would be operated by the Army Corps of Engineers and the irrigation and power functions would be integrated into the CVP. It is estimated that the project would provide an annual firm water supply of 150,000 acre-feet to the CVP, with deficiencies of 25 percent in four years during a seven year critical dry period.

PROJECT SCHEDULE: Draft Environmental Impact Statement was prepared in 1977.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? The project was authorized for construction by Congress by the Flood Control Act of November 7, 1966 (Public Law 89-789), but this was modified by Section 159 of the Water Resources Development Act of 1976 (P.L. 94-587) to authorize Phase 1 Design Memorandum studies.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES:

Draft Environmental Statement, Marysville Lake, Prepared by U.S. Army Corps of Engineer District, Sacramento, California, March 1977.

MARYSVILLE-YUBA RIVER LEVEES STUDY

LEAD AGENCY: U.S. Army Corps of Engineers

CVP SERVICE AREA: Sacramento River Division

PROJECT DESCRIPTION:

The project is currently in the construction phase and is being funded 100 percent by Federal Funds. The project consists of levee reconstruction at 13 sites along the 134 miles of the Sacramento River Flood Control Project levees. Work includes about 17 miles of toe drains, 4 miles of slurry cutoff walls, a one mile drainage ditch, ten miles of levee raising to restore the design freeboard. The EA has been issued and focuses on maintenance/repair aspect of the project. Some disturbance to non-fish and wildlife habitats during construction will occur. This impact will be mitigated by the restoration of riparian habitat during construction.

PROJECT SCHEDULE: Construction is scheduled to start in 1994.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly. The project is for improved flood protection along the Sacramento River, including raising and strengthening levees. The changes in river capacity could affect operational requirements at CVP facilities.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? The project has been authorized under the Flood Control Acts of 1917, 1928, and 1941, and the River and Harbor Act of 1937.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes. An Environmental Assessment for the project has been submitted.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Yes.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Yes.

REFERENCES: Phil Lee, Corps of Engineers, October 1993, Personal Communication.

MERCED COUNTY STREAMS STUDY

LEAD AGENCY: U.S. Army Corps of Engineers

CVP SERVICE AREA: East Side Division

PROJECT DESCRIPTION:

This project, currently in the feasibility stage, is for the single purpose of flood protection. The project consists of two dry dams and levee restoration work in the vicinity of the town of Merced in the San Joaquin River drainage area.

PROJECT SCHEDULE: The final EIS has been completed. A supplemental EIS is currently being prepared. The draft feasibility report will be completed following the revised biological opinion on the Delta Smelt in 1994. Project design will begin in 1994.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

PINE FLAT FISH AND WILDLIFE RESTORATION PROJECT

LEAD AGENCY: U.S. Army Corps of Engineers

CVP SERVICE AREA: Friant Division

PROJECT DESCRIPTION:

The project is currently in the reconnaissance phase and is funded 100 percent by Federal funds. The purpose of the project is to develop more water to restore and re-establish the fish and wildlife resources along the Kings River (including native species and trout, no anadromous fish). The scope of the project could include raising the dam at the Pine Flat Reservoir or creating off-stream storage, adjusting water delivery schedules from the Kings River, and importing CVP water through an exchange/transfer process utilizing existing conveyance facilities.

The reconnaissance study report is anticipated in 1994. The next phase, completion of the feasibility study, is dependant on the recommendations of the reconnaissance study.

PROJECT SCHEDULE: The reconnaissance study to be completed in 1994.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Jeff Groska, Corps of Engineers, October 1993, Personal Communication.

REDBANK-FANCHER CREEKS STUDY

LEAD AGENCY: U.S. Army of Corps of Engineers

CVP SERVICE AREA: Friant Division

PROJECT DESCRIPTION:

This is a local flood control project. Detention dams are being constructed on Fancher and Redbank Creeks to impound flood flows and encourage percolation of stormwater into the groundwater basin.

PROJECT SCHEDULE: Construction completed in 1993.

PROJECT STATUS AS OF OCTOBER 30, 1992: Construction completed.

WILL THE PROJECT IMPACT CVP OPERATIONS? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA?Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Yes.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Yes.

REFERENCES:

U.S. Army Corps of Engineers, Final Environmental Impact Statement, Redbank and Fancher Creeks, July 1980.

Jerry Lakeman, Fresno Metropolitan Flood Control District, 1993, Personal Communication.

SACRAMENTO RIVER FLOOD CONTROL SYSTEM EVALUATION

LEAD AGENCY: U.S. Army Corps of Engineers

CVP SERVICE AREA: Shasta Division

PROJECT DESCRIPTION:

The project is to evaluate 1,000 miles of levees, overflow weirs, and flood bypass channels. The integrity of the structures will be evaluated to determine reconstruction needs. The study area is located along the Sacramento River from the confluence with Deer Creek (upstream of Chico) to Knights Landing.

PROJECT SCHEDULE: Final Programmatic Environmental Impact Statement (PEIS)/Environmental Impact Report completed in 1992.

PROJECT STATUS AS OF OCTOBER 30, 1992: Feasibility Study ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA?Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: U.S. Army Corps of Engineers, Sacramento River Flood Control System Evaluation, May 1992.

SACRAMENTO METROPOLITAN AREA FLOOD CONTROL STUDY

LEAD AGENCY: U.S. Army Corps of Engineers

CVP SERVICE AREA: Shasta Division

PROJECT DESCRIPTION:

In February 1986, major storms in northern California caused significant flooding in the Sacramento area. High water levels occurred along the Sacramento River and Yolo Bypass. It was determined that the area did not have the 100-year storm flood protection levels that were assumed. Based on information collected from the 1986 flood it is estimated that about 30,000 people are at risk from flooding in the West Sacramento area.

In response to this flooding, the Army Corps of Engineers prepared a feasibility report and EIR/EIS for studies of flooding problems along the Sacramento River and Yolo Bypass, from the Sacramento Weir downstream to an area just south of Freeport. This study was not part of the American River Watershed Investigation. The feasibility report identified a Selected Plan to reduce the potential flood threat to the West Sacramento area. The State of California also participated in the study and EIR/EIS.

From the feasibility studies and EIR/EIS evaluations a Selected Plan was developed. The Selected Plan calls for raising levees around West Sacramento, including the Yolo Bypass and Sacramento Bypass. The Selected Plan would provide for a 400-year level of flood protection. The Selected Plan also assumes the American River 200-year flood control only dam is in place. If this dam is not constructed, the Selected Plan would remain feasible, but would provide the West Sacramento area with at least a 150-year level of flood protection.

PROJECT SCHEDULE: The feasibility report and EIR/EIS was submitted to Congress for authorization. The basic authority for the study was provided in the Flood Control Act of 1962 (PL 87-874), which directs the Army Corps of Engineers to study flood problems in the Sacramento River Basin and other stream in northern California.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Potentially. The implementation of flood control action at the Sacramento Weir or along the Yolo Bypass could affect the Sacramento River flows during high flows and flood conditions.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? Not applicable. Authorization is granted by Congress and by the State of California.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? No. Federal funding would be available and funds would be available from cost share programs with the State of California. Federal regulations require non-federal participation in accordance with the Water Resources Development Act of 1986. The benefit/cost ration for the Selected Plan (1989) was 5.8 to 1.0

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Sacramento Metropolitan Area, California, Feasibility Report and EIR/EIS, U.S. Army Corps of Engineers and State of California State Reclamation Board, February 1992.

SOUTH SACRAMENTO STREAMS STUDY

LEAD AGENCY: U.S. Army Corps of Engineers

CVP SERVICE AREA: Sacramento River Division

PROJECT DESCRIPTION:

The project is currently in the reconnaissance phase and is being funded 100% by Federal Funds. The purpose of the project is to evaluate the need for, and possible location of single use flood control detention sites and multi-use flood control/recreation sites for detention of flood waters into the Sacramento Delta.

PROJECT SCHEDULE: A reconnaissance study is being completed.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly. Since the project is for improved flood protection along the Sacramento River, it could impact CVP operations.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA?Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Jeff Groska, Corps of Engineers, October 1993, Personal Communication.

YOLO BYPASS WESTSIDE TRIBUTARIES STUDY

LEAD AGENCY: U.S. Army Corps of Engineers

CVP SERVICE AREA: Sacramento River Division

PROJECT DESCRIPTION:

The project is currently in the reconnaissance phase. The purpose of the project is to identify feasible flood control alternatives for selected drainage areas of Bear, Cache, and Putah Creeks. Specific alternatives include locating and sizing new structural and non-structural flood control solutions. Some of the structures under consideration include detention basins on Cache Creek and/or Bear Creek; levee protection for Dry Slough, Willow Slough or lower Woodland areas. Non-structural or site-specific levees around water/wastewater treatment facilities are also included.

PROJECT SCHEDULE: Reconnaissance study, initiated in 1993. The next phase, completion of the feasibility study, is dependant on the recommendations of the reconnaissance study and the identification of a co-sponsor, along with the COE, for 50 percent of the project costs; i.e., Yolo County.

PROJECT STATUS AS OF OCTOBER 30, 1992: Study in progress.

WILL THE PROJECT IMPACT CVP OPERATIONS? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Irene Davies, Corps of Engineers, October 1993, Personal Communications.

ARROYO PASAJERO

LEAD AGENCY: Department of Water Resources/U.S. Bureau of Reclamation

CVP SERVICE AREA: West San Joaquin Division

PROJECT DESCRIPTION:

The Arroyo Pasajero is a dry wash located in Fresno County near Coalinga. At the location where the San Luis Canal crosses the arroyo, the canal foundation serves as a partial dam across the arroyo and causes water to accumulate upstream of the canal. A project under study by DWR and Reclamation is evaluating alternatives to restore the San Luis Canal flood protection to design levels. During storm events, excess flood waters would flow into the canal or through culverts under the canal. The project is complicated by the presence of high asbestos concentrations in the sediments of the arroyo. The asbestos originates from naturally erosive deposits in the upper watershed and from abandoned asbestos mines in the watershed. The mines are currently on the U.S. Environmental Protection Agency Hazardous Waste Superfund List. The asbestos fibers settle from the flood waters in the pond upstream of the canal foundation. When the ponded area dries following a flood, asbestos fibers remain on the ground surface and become airborne during farming operations. An operations and facilities plan is currently being completed to determine a method to reduce the risk of asbestos exposure.

PROJECT SCHEDULE: Feasibility report being completed.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? No.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA?Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: U.S. Bureau of Reclamation, Arroyo Pasajero Flood and Silt Deposition Study, Jan 1984.

CLEAR CREEK IMPROVEMENTS

LEAD AGENCY: Department of Water Resources/U.S. Bureau of Reclamation

CVP SERVICE AREA: Shasta/Trinity Division

PROJECT DESCRIPTION:

Clear Creek is a major tributary to the Sacramento River below Shasta Dam. McCormick-Saeltzer Dam has blocked upstream fish migration in Clear Creek about 8 miles upstream from its mouth since its construction around the turn of the century. In 1963, Whiskeytown Dam was constructed approximately 16.5 miles upstream from the confluence of Clear Creek with the Sacramento River. More than 85 percent of the natural flow of the creek has been diverted above the dam. The interruption of natural gravel recruitment by construction of Whiskeytown Dam and by streamside gravel mining has severely depleted spawning gravels. Sediment loads derived from the decomposed granite soils of the watershed have damaged many of the remaining spawning gravels.

The California Department of Water Resources, and the California Department of Fish and Game have studied possibility of improving anadromous fish production in Clear Creek. The following improvements have been suggested:

- Increased instream flow releases
- Reconstruct the fish ladder and fish screen at McCormick-Saeltzer Dam
- Reconstruct spawning riffles below McCormick-Saeltzer Dam
- Purchase or obtain long-term leases on lands along Clear Creek to preserve riparian habitat and limit streamside gravel mining
- Construct instream structures for fish cover
- Periodically dredge the pool above McCormick-Saeltzer Dam

A portion of these improvements, including modifications to the fish ladder and screening facility at McCormick-Saeltzer Dam, and reconstruction of spawning riffles below the dam have been completed. These projects were completed by DFG in 1992 with the assistance of DWR. The fish ladder improvements included removal of concrete cover from the fish ladder and a minor relocation of the entrance. Outmigrating Spring-run chinook salmon were planted in a tributary stream in the Fall of 1990. Remaining work to be completed includes dredging of the reservoir above the dam and acquisition of long-term leases on lands along Clear Creek to preserve riparian habitat.

PROJECT SCHEDULE: Project being completed.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes. Increases in instream flow requirements will affect CVP operation.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No. Negative Declaration has not been filed for remaining projects.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Partially. The McCormick-Saeltzer Dam Fish Ladder and Screen and spawning riffles constructed downstream of the dam will be included in the No-Action Alternative. Instream flow increases, habitat restoration, and other improvements not included.

REFERENCES:

Resources Agency of California. January 1989. Upper Sacramento River Fisheries and Riparian Habitat Management Plan.

Ralph Hinton, California DWR, September and October 1993, Personal Communication.

COASTAL AQUEDUCT

LEAD AGENCY: Department of Water Resources

CVP SERVICE AREA: West San Joaquin Division

PROJECT DESCRIPTION:

The California Department of Water Resources (DWR) is proceeding with completion of the Coastal Branch, Phase II of the State Water Project (SWP). Completed in 1968, Phase I of the Coastal Branch includes two pumping plants, and a 15-mile canal extending from the California Aqueduct near the Kings-Kern county line westerly to Devils Den. Phase II will include a 102-mile buried pipeline extending from Devils Den to Tank 5 on Vandenberg Air Force Base in Santa Barbara County. The pipeline will convey 47,316 acre-feet of water to San Luis Obispo and Santa Barbara Counties. In addition to the pipeline, Phase II facilities will include four pumping plants, five tank sites, and one power recovery plant. The combination of the canal, pipeline, and other related facilities is collectively referred to as the Coastal Aqueduct.

In 1985, the water demand in the Coastal Branch exceeded dependable supplies by about 53,000 acre-feet in San Luis Obispo County, and by 51,400 acre-feet in Santa Barbara County. By 2010, this deficiency is estimated to increase to 57,800 acre-feet in San Luis Obispo County and remain unchanged at 51,400 acre-feet in Santa Barbara County. Currently, the demands in these counties is being met through groundwater overdraft. Deliveries from the Coastal Branch would help meet water demands in these counties, thus reducing groundwater overdraft.

In July, 1992, the Notice of Determination and Statement of Findings were filed for the Coastal Branch, Phase II. This marked the completion of the CEQA process for this project and the beginning of final design. Construction is scheduled to begin in late 1993 and be completed in early 1997.

Completion of the Coastal Branch, Phase II will result in increased demand for SWP water. DWR plans to meet this demand without additional diversions from the Sacramento-San Joaquin Delta. In years of deficiencies, Phase II demands would be met by the reallocation of existing supplies among the SWP contractors. This reallocation would reduce deliveries to the agricultural contracts by about 3 to 4 percent, and to M&I contractors by less than 0.5 percent.

PROJECT SCHEDULE: Notice of Determination filed July, 1992. Construction began in late 1993.

PROJECT STATUS AS OF OCTOBER 30, 1992: Phase I of the Coastal Aqueduct was completed in 1968. The Phase II will be completed by 1997.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly. Construction of the project could alter the timing of existing SWP water exports which could impact CVP exports.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? Authorization is granted under the Burns-Porter Act of 1960.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Yes.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Yes.

REFERENCES:

Scope of Study for the State Water Project Coastal Aqueduct, Kern County, San Luis Obispo County, and Santa Barbara County, DWR, January 1987.

GEORGIANA SLOUGH IMPROVEMENTS

LEAD AGENCY: Department of Water Resource

CVP SERVICE AREA: Delta Division

PROJECT DESCRIPTION:

The diversion of the Sacramento River flows at Georgiana Slough results in diversion of juvenile chinook salmon and the eggs, larvae, and juveniles of striped bass and other species into the central Delta. These species are subject to high mortality associated with longer migration routes, higher water temperatures, increased predation, unscreened agriculture diversions, reverse flows, and direct entrainment losses at the CVP and SWP export facilities. To reduce the impacts to fisheries of these facilities, the tendencies to draw fish through the Delta Cross Channel of Georgiana Slough must be reduced.

DWR is evaluating the effectiveness of structural and non-structural barriers, such as acoustic and electrical barriers to reduce the numbers of fish that are diverted into these facilities. Non-structural barriers were tested at Georgiana Slough in 1992 and are planned to be tested again in 1994.

Future projects may include testing of barging hatchery reared winter-run smolts, testing of diverters at Georgiana Slough and the Delta Cross Channel to guide migrating smolts, testing of diversion structures for a fraction of the Sacramento River into the Deep Water Ship Channel to allow smolts to bypass the Delta channels, and testing of a physical barrier at Georgiana Slough.

PROJECT SCHEDULE: Project ongoing.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly. A change in operation of the Delta Cross Channel and Georgiana Slough facilities would affect Delta export pumping and could affect water diversion to export contractors.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? DWR has authorization.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? DWR had funding.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? DWR has authorization.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? DWR has authorization.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Department of Water Resources various reports.

KERN WATER BANK

LEAD AGENCY: Department of Water Resources

CVP SERVICE AREA: Friant Division

PROJECT DESCRIPTION:

The Kern Water Bank is a conjunctive use groundwater storage program undertaken by the State Department of Water Resources (DWR) and seven local water agencies. The purpose of the project is to develop storage capacity to augment the dependable supply of the State Water Project (SWP). The project would store water in the Kern County groundwater basin and would be managed in coordination with local surface water and storage facilities. The project consists of 8 elements, which would be developed in successive phases. The first phase of the project is the Kern Fan Element, which would be developed and operated by DWR.

The Kern Fan Element would consist of up to 1,000 acres of recharge basins and 30 extraction wells. Under an agreement with the City of Bakersfield, existing municipal recharge basins would be used when they are available. The water would be transferred from the California Aqueduct through the Cross Valley Canal to Bakersfield. The project would include construction of turnouts along the Cross Valley Canal, a metering structure, and several other appurtenant structures. The maximum annual recharge for the Kern Fan Element would be 90,000 acre-feet. To date, DWR has purchased 20,000 acres of land, acquired a storage capacity of 100,000 acre-feet, and has installed 30 groundwater extraction wells. No conveyance, metering or recharge facilities have been constructed.

Pre-feasibility studies have been completed for six elements, a feasibility study has been completed for 1 element, and a feasibility study/EIR has been completed for the Kern Fan Element of the Kern Water Bank. In 1992, progress on development of the Kern Fan Element decreased substantially in response to uncertainty of future water exports due to endangered species flow requirements in the Delta. The Kern Fan Element is currently being re-evaluated, and a revised Draft Supplemental EIR is scheduled to be completed soon. However, this schedule may be changed due to the proposed transfer of the Kern Fan Element from DWR to local agencies under the Monterey Agreement.

PROJECT SCHEDULE: Project ongoing.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly. The timing of SWP water exports for storage in the Kern Water Bank could impact operations of the CVP.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Yes.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Yes, include only the facilities that have been constructed as of January 1994.

REFERENCES:

Department of Water Resources, Kern Water Bank Status Report.

Jack Erickson, department of Water Resources, October 1993. Personal Communications.

LOS BANOS GRANDES DAM AND RESERVOIR STUDY

LEAD AGENCY: Department of Water Resources

CVP SERVICE AREA: West San Joaquin Division

PROJECT DESCRIPTION:

The Los Banos Grandes facilities would consist of an offstream storage reservoir, located near the San Luis Dam and Reservoir, with associated pumping and generating plants and conveyance channels. The concept is to bank water south of the Delta when winter flows are high. These flows would be pumped from Banks pumping plant in the Delta through the California Aqueduct and then pumped to the proposed Los Banos Grandes reservoir for storage. Power would be generated when the water is released from the main reservoir into the Los Banos Reservoir to the California Aqueduct during the summer months. The operation of the proposed reservoir would be similar to that of San Luis Reservoir, except that Los Banos Grandes would reserve about two-thirds of its stored water each year to provide for supplies during periods of water shortage. The project would improve the reliability of the SWP by increasing the dependable yield of the project by over 250,000 acre-feet. This estimate in the increased yield was made prior to the establishment of Delta export restrictions defined by the biological opinions for winter-run chinook salmon and Delta smelt.

Two other potential reservoir sites evaluated for the Los Banos Grandes project are Orestimba Reservoir and Sunflower Reservoir. The Orestimba Reservoir was to be located on Orestimba Creek west of the town of Newman. The reservoir was proposed as an alternative to Los Banos Grandes and would provide 620,000 acre-feet of storage with an average annual yield of 105,000 acre-feet. The reservoir was proposed for construction in combination with Sunflower or Kellogg Reservoirs and a Marsh Creek/Orestimba Reservoir. The alternative was removed from consideration when the Contra Costa Water District began the planning and design of a Kellogg/Los Vaqueros Reservoir project. Sunflower Reservoir was to be located near the confluence of the Coastal Aqueduct and California Aqueduct. This reservoir also was proposed as an alternative to Los Banos Grandes and would provide 600,000 acre-feet of storage with an average annual yield of 80,000 acre-feet. The reservoir was proposed for construction in combination with Los Vaqueros Reservoir, a Marsh Creek or Orestimba Creek reservoir, or Upper Garzas, Ortigalita, Del Puerto, and/or Orestimba Reservoirs. The Sunflower site has several active oil production wells within the watershed. Before water could be safely stored at the Sunflower site, all active and previously abandoned oil production wells would have to be sealed.

PROJECT SCHEDULE: DWR initiated investigation of 13 alternative offstream storage reservoirs south of the Delta, including a Los Banos Grandes Alternative, 1983.

Offstream Storage Reservoir Sites South of the Delta: Reconnaissance Environmental Analysis published May 1984.Draft
EIR for Los Banos Grandes Facilities, December 1990.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project is being re-evaluated.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Los Banos Grandes Facilities, Draft EIR, DWR, December 1990.

NORTH DELTA WATER MANAGEMENT PROGRAM

LEAD AGENCY: Department of Water Resources

CVP SERVICE AREA: Delta Division

PROJECT DESCRIPTION:

The North Delta study area encompasses the island and channels of the Delta south of Sacramento River, north of the San Joaquin River, east of Rio Vista, and west of Thorton. The area is about 170,000 acres, of which nearly 90 percent are irrigated. The Sacramento, Mokelumne, Cosumnes, Dry Creek, Morrison Creek, and Deer Creek rivers and water courses converge in the north Delta. The objectives of the program are to alleviate flooding in the north Delta, reduce reverse flows in the lower San Joaquin River, improve water quality, improve SWP flexibility, and reduce adverse fishery impacts in the north Delta. Under the program the preferred alternative includes dredging of the main stem and South Fork Mokelumne River, enlarging the Delta Cross Channel gate structure, testing of mitigation river collector wells and fish screens. The estimated cost of this alternative was $290 million in 1990.

PROJECT SCHEDULE: Project ongoing.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly. This project has a potential to affect CVP pumping facilities south of the Delta.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? This project will be authorized by the State of California.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Funding for this program will be available from the State of California.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Authorization for the program will be available from the State of California.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Funding for construction of projects recommended by the program will be available from the State of California.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: North Delta Program Draft EIR/EIS, DWR, November 1990.

OLD RIVER BARRIER

LEAD AGENCY: U.S. Bureau of Reclamation/ Department of Water Resources

CVP SERVICE AREA: Delta Division

PROJECT DESCRIPTION:

Historically, the Department of Water Resources (DWR) has placed a temporary rock barrier at the confluence of the head of Old River and the San Joaquin River during the fall of the low flow years under an agreement with the Department of Fish and Game. This barrier directs San Joaquin River water that would otherwise flow in to Old River down the San Joaquin River toward the central Delta. The additional flow in the San Joaquin River improves dissolved oxygen levels in the San Joaquin River for salmon migration upstream to their spawning grounds along the tributaries to the San Joaquin River.

Since 1986, DWR, the U.S. Bureau of Reclamation, and the South Delta Water Agency began negotiations on an agreement for developing long-term solutions to water supply problems in the south Delta. In 1990, a draft agreement was completed but, execution is awaiting Federal approval. DWR has been carrying out the provisions of the agreement prior to its execution.

The first step is to construct temporary facilities prior to developing long-term solutions. As a result of this program, the Temporary Barriers Project (TBP), three barriers have been constructed at: (1) Middle River near Highway 4, (2) Old River near the Tracy Pumping Plant, and (3) Old River near its Head, in various combinations, since 1987. These barriers allow water to flow upstream into south Delta channels on the flood tide, but close during the ebb tide to hold waters in the channels. These barriers have been installed and operated from April through September to coincide with the irrigation season for agriculture in the south Delta. A fourth barrier in Grantline Canal which has been planned as a part of the TBP has yet to be installed.

PROJECT SCHEDULE: Temporary barriers have been used to control water flows and water quality.

PROJECT STATUS AS OF OCTOBER 30, 1992: Temporary projects have been installed at Old River during periods of drought to improve water flows for fish uses. However, permanent placement of a rock barrier will be addressed in the alternatives.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No. Final environmental documents have not been filed for permanent solutions.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Include temporary facilities in No-Action Alternative.

REFERENCES: Department of Water Resources various reports.

RED BANK DAM STUDY (COTTONWOOD)

LEAD AGENCY: Department of Water Resources

CVP SERVICE AREA: Shasta Division

PROJECT DESCRIPTION:

This proposed project in Tehama County, would involve the construction of two dams: Dippingvat on Red Bank Creek, and Schoenfeld on the South Fork of Cottonwood Creek. The gross capacities of the two reservoirs would be 104,000 acre-feet at Dippingvat and 250,000 acre-feet at Schoenfeld. Water stored in Dippingvat reservoir could be released to Schoenfeld through a tunnel connecting the two reservoirs. The project would provide water supply, flood control, and fisheries benefits.

The Department of Water Resources conducted preliminary feasibility investigations and prepared cost estimates, but no economic evaluations or environmental studies have been prepared. There is presently no activity on the project, other that the monitoring of stream flows.

PROJECT SCHEDULE: Project deferred.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project deferred.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES:

Ming Cheng, Department of Water Resources, 1993, Personal Communication.

SACRAMENTO-SAN JOAQUIN DELTA LEVEES SUBVENTION PROJECT

LEAD AGENCY: California Department of Water Resources

CVP SERVICE AREA: Delta Division

PROJECT DESCRIPTION:

This project was created within State Senate Bill SB 34 which became law in March, 1988. The project was authorized to provide $120 million over a ten year period ($12 million per year) for upgrading and maintaining delta levees. The project consists of two primary components. The first component, defined as the Delta Levees Subvention Program, consists of an annual $6 million budget available to make payments or reimbursements to local flood control districts for upgrading and maintaining levees within their individual jurisdictions. The second $6 million per year budget is specified for upgrading and maintaining the eight western delta islands (i.e.; Sherman, Twitchell, Webb) and the communities of Thornton and Walnut Grove.

PROJECT SCHEDULE: The project is currently funding improvements to existing facilities, and is scheduled to continue through 1999.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly. The project provides improved flood protection in the Sacramento-San Joaquin Delta. Although these improvements would not directly impact CVP operations, the improved flood control conditions could allow operational changes in the CVP.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? The project was authorized under SB 34 and SB 1065.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA?Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes. DWR progress reports are released annually on the status of the various activities that have been or will be undertaken. Environmental documentation is developed and filed specifically for each phase of activities as described in Senate Bill SB 1065.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Yes. Permits are issued on a project by project basis.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Yes. The improvements to delta levees that have been completed as of January 1994 under this program will be included in the No-Action Alternative.

SOUTH DELTA PROGRAM

LEAD AGENCY: California Department of Water Resources

CVP SERVICE AREA: Delta Division

PROJECT DESCRIPTION:

The purpose of the Program is to provide for operational flexibility for the State Water Project, reduce fishery impacts in the Delta, and improve water levels and circulation for Delta agricultural diverters. The alternative analysis for the on-going study will describe the needs for the project and explain project assumptions, state the project benefits and purposes, describe alternatives and screening criteria, analyze all alternatives and combination of alternatives to identify practicable and the least environmentally damaging alternative, and define steps to avoid, minimize, and compensate for any fish and wildlife losses due to implementation of the project.

In July 1982, the South Delta Water Agency filed a lawsuit against the State of California and federal government over the effects of the CVP and SWP operations on the south Delta. The suit alleged that CVP operations on the San Joaquin River unlawfully reduce the quantity and degrade the quality of water flowing in the San Joaquin River to the South Delta. The suit maintained that operations of the SWP and CVP pumps violate South Delta Water Agency rights by lowering water levels, reversing flows, and diminishing the influence of the tides. Furthermore, it was alleged that the Secretary of the Interior's designation of the Stanislaus River basin for allocation of water from New Melones Reservoir violates South Delta Water Agency rights by not including the South Delta in the basin.

The first measures to mitigate the effects of the CVP and SWP pumps were to install rock barriers at Middle River and Old River to improve South Delta water flows and water quality (see Old River project description). Other measures have included installation of recorders on Tom Paine Slough, dredging around the control structure in Tom Paine Slough, installation of portable pumps on Tom Paine Slough to augment water supplies, and modification of the Clifton Court Forebay operation to improve water levels in South Delta channels.

DWR, Reclamation, and the South Delta Water Agency recently agreed to a draft contract that settles the 1982 lawsuit. The agencies are now in a process to get approval from the U.S. Department of Justice that the agreement provides settlement for the lawsuit.

Other projects have increased the capability of the Banks Pumping Plant to deliver SWP water from 6,400 cfs to 10,300 cfs. However, diversions into the bay are restricted to 6,990 cfs for one day and 6,680 cfs for a three-day average. Part of the project is to obtain a Section 10 permit from the Corps of Engineers to operate the pumps at full capacity. Other parts of the project could include additional forebay intake structures; limited channel dredging in Old River, Victoria Canal, North Canal, and Middle River; control structures to change flow patterns in the San Joaquin River; and fish protection measures.

This project has been incorporated into the ongoing planning efforts by DWR for the Bay-Delta planning process.

PROJECT SCHEDULE: Project ongoing.

PROJECT STATUS AS OF OCTOBER 30, 1992: The project is authorized by the State of California and Reclamation under the settlement agreement and is proceeding.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly. Implementation of settlement requirements will affect CVP operations.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES:

Administrative Draft Interim South Delta Program, Section 404(B)(1), Alternative Analysis Report, August 12, 1993.

Department of Water Resources various reports.

SUISUN MARSH PROTECTION PLAN

LEAD AGENCY: Department of Water Resources

CVP SERVICE AREA: Delta Division

PROJECT DESCRIPTION:

The objective of the Suisun Marsh Protection Plan is to develop and implement a plan to mitigate the adverse effects of the SWP, CVP, and other upstream diversions on Suisun Marsh water quality. The Plan was developed by DWR, Reclamation, the Department of Fish and Game, and Suisun Resources Conservation District. First stage implementation of the Plan was accomplished with construction of initial facilities in 1980. The Four-Agency Suisun Marsh Preservation Agreement was signed in March 1987. Implementation of the Plan is continuing. Installation of the key facility of the Plan, the Salinity Control Gates, was completed in 1988. An environmental impact report and a Plan of Protection for Suisun Marsh were prepared by DWR in February 1984. The Plan calls for construction of a series of control structures and new or enlarged channels within the marsh to distribute water from Collinsville throughout the marsh to improve water quality. Under the plan water will be distributed more evenly from east to west and north to south during the months of October to June when migratory waterfowl use is high. A major new facility will be constructed at Montezuma Slough to bring water from Collinsville. A monitoring program also will be conducted for water and soil salinity. Data from the monitoring program will be used in development of a marsh management program.

PROJECT SCHEDULE: The project will be constructed in phases.
1987 - Construction of the Montezuma Slough Control Structure.
1987 - Construction of Annie Mason pump station.
1987 - Lower Joice Island Facility construction.
1987 - Cygnus Area Facility construction.
1992 - Improvements to the Boynton-Cordelia Ditch.
1992 - Dredge Boynton Slough.
1993 - Improvements to Cordelia and Goodyear Ditch.
1993 - Construction of Goodyear Slough control structure.
1994 - Construction of Grizzly Island distribution system.
1998 - Improvements to Portero Hill.
2000 - Acquire additional marshland.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Project ongoing.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Permits have been issued for the projects under construction.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Yes, include portions of the project that have been constructed by January 1994 (i.e., construction of salinity flow control structure at Montezuma Slough).

REFERENCES: North Delta Program Draft EIR/EIS, DWR, November 1990.

WEST DELTA WATER MANAGEMENT PROGRAM

LEAD AGENCY: Department of Water Resources

CVP SERVICE AREA: Delta Division

PROJECT DESCRIPTION:

West Delta water management planning has focused on a number of Delta problems. The first is the installation of an overland water supply facility on Sherman Island. This overland facility, to be funded by the State Water Project, would address only the water supply needs of Sherman Island. The other issues and programs have also come into focus and have reshaped and broadened the western Delta planning perspective. An unstable agricultural economy, continuing problems of subsidence, levee instability, and the loss of wetland and riparian habitats have necessitated a more comprehensive planning approach.

Implementation of this program involves these main elements:

- amending the 1981 agreement between the North Delta Water;
- acquiring land on both islands, Initial Study and Negative Declaration completed for Sherman Island in January 1990 and Twitchell Island in May 1993;
- implementing the Sherman Island Wildlife Management Plan and the Twitchell Island Wildlife Management Plan;
- improvement of the threatened levees on both islands as part of the state's Delta Flood Control Act of 1988 levee program;
- securing memoranda of agreement from state and federal permitting agencies; and
- completing a detailed, acre-by-acre final design.

The North Delta Water Agency and the Department of Water Resources signed an agreement in 1981 to ensure that the state will maintain a dependable water supply of adequate quality for agricultural uses within the boundaries of NDWA. The agreement provides for installation of an overland facility to provide a dependable water supply on Sherman Island. The alternative being considered to the overland facility is the Sherman Island Wildlife Management Plan. Final design of the overland facility is subject to approval by the North Delta Water Agency and by Sherman Island's Reclamation District No. 341, as reflected in the contract, and a contract amendment is required to allow the approval of the Wildlife Plan by RD No. 341 and NDWA. To implement the Sherman Island Wildlife Management Plan, the 1981 contract needs to be amended to allow the plan to be substituted for the overland facility.

The proposed land acquisition phase is part of the joint program between the Department of Water Resources and the Department of Fish and Game to implement the wildlife management plans. The land acquisition process consists of property selection and appraisal, acquisition of purchase options, and subsequent purchase of fee simple and/or, possibly, easements to establish wildlife habitat on Sherman Island. Once sufficient acreage has been acquired to implement the plan, all landowners willing to participate in the project shall be offered a purchase option for their property.

DWR purchased over 3,000 acres (approximately 80 percent of the island) of land on Twitchell Island by March 1993. During this interim period, the land is being managed for agriculture on 70 percent of state owned lands and grazing on the remaining 30 percent. DWR also has purchased 870 acres on Sherman Island.

Implementation of the wildlife management plans will be accomplished in several states. Currently the properties are being managed as grazing land and/or agriculture. We are also investigating the possibility of limited managed hunting programs prior to the development of wildlife habitat. In the future, a wetland/riparian/upland complex of habitats will be constructed for the benefit of wintering waterfowl and an array of wildlife species. These will include the following:

- emphasizing development of wetland riparian, and upland habitats to maximize wildlife benefits;
- maintaining the integrity of the island by reducing the rate of soil subsidence, thereby reducing the probability of flooding;
- managing agricultural crop production to minimize subsidence and provide flood and other resources for wildlife, while using the most cost-effective methods possible; and
- effectively managing the island for wildlife.

A Memorandum of Agreement for the use of Twitchell Island for wildlife management and potential mitigation for impacts of DWR projects in the Delta was completed between DWR and the Department of Fish and Game on November 6, 1991. The U.S. Fish and Wildlife Service has been contacted before proceeding with any final plan.

PROJECT SCHEDULE: Project ongoing. DWR actively pursuing land acquisition and negotiations with water users.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Project design complete.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Project design complete.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Yes.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Yes.

REFERENCES:

Los Banos Grandes Facilities, Draft EIR, DWR, December 1990.
1981 DWR/North Delta Water Agency Agreement.

Initial Study and Negative Declaration for Proposed Twitchell Island Wildlife Management Plan, May 1993 (DWR).

Initial Study and Negative Declaration for Proposed Sherman Island Wildlife Management Plan, January 1990, (DWR).

ANDERSON-COTTONWOOD IRRIGATION DISTRICT FISH PASSAGE

LEAD AGENCY: Anderson-Cottonwood Irrigation District

CVP SERVICE AREA: Shasta Division

PROJECT DESCRIPTION:

Anderson-Cottonwood Irrigation District (ACID) diverts up to 400 cfs from the Sacramento River about 4 miles below Keswick Dam. The 450-foot long diversion dam is a flashboard-type structure, constructed in 1917. The flashboards are typically installed in mid April and removed in mid November. When the flashboards are installed or adjusted, Keswick releases are reduced to 6,000 cfs or less to provide safer conditions for people working on the dam. A fish ladder is provided at the north end of the dam, but this structure has proven ineffective because of its narrow width and low attraction flow.

When the flashboards are in, upstream migration effectively stops at the ACID dam. This is of particular significance to the badly depressed winter run salmon. The periodic river flow adjustments to accommodate installation and adjustment of the flashboards can disrupt downstream salmon spawning activity, dewater salmon redds, and strand fish in side channel areas. The lowered flows also contribute to increased water temperatures during these periods.

The Upper Sacramento River Fisheries and Riparian Habitat Advisory Council has studied the problem and recommended interim and long-term actions to alleviate problems caused by the dam. The proposed long-term solution is reconstruction of the dam and fish ladder. Interim measures include:

- repairs to the existing fish ladder;
- construction of a new temporary ladder at the south end of the dam; and
- installation of a mechanical system to pull the flashboard without reducing river flows.

PROJECT SCHEDULE: Project ongoing.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA?Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES:

Upper Sacramento River Fisheries and Riparian Habitat Advisory Council. Upper Sacramento River Fisheries and Riparian Habitat Management Plan. pp 103-105. January 1989.

ARVIN EDISON WATER STORAGE DISTRICT AND METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

LEAD AGENCY: Arvin Edison Water Storage District, Metropolitan Water District of Southern California, and the U.S. Bureau of Reclamation

CVP SERVICE AREA: Friant Division

PROJECT DESCRIPTION:

The purpose of this project would be improve the dependability of water supplies in the Arvin Edison Water Storage District and decrease groundwater use. Under this project, the Metropolitan Water District of Southern California (MWD) would store up to 135,000 acre-feet of water in the Arvin Edison Water Storage District groundwater basin. Of this water, up to 20 percent could be withdrawn for use on 5000 acres of land currently not irrigated with CVP water. In exchange, MWD would take delivery of up to 93,000 acre-feet of CVP water through the California Aqueduct. No exchange would occur until MWD had delivered 100,000 acre-feet to the groundwater basin.

PROJECT SCHEDULE: Project ongoing.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA?Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Arvin Edison Water Storage District, Metropolitan Water District of Southern California, and the U.S. Bureau of Reclamation, Water Storage and Exchange Program Draft Environmental Impact Statement, January 1992.

DELTA WETLANDS

LEAD AGENCY: Delta Wetlands Corporation

CVP SERVICE AREA: Delta Division

PROJECT DESCRIPTION:

The project would provide seasonal storage of unappropriated water on two islands in the Delta, including Webb Tract and Bacon Island. Bouldin Island and 3,014 acres of Holland Tract will be devoted to wildlife benefits with only minor water development. Water would be diverted onto the islands using several existing siphons and two new siphons on each island. New diversions would be screened to protect fish. The stored water would be available for purchase for irrigation, domestic, municipal, fish and wildlife enhancement, or water quality protection purposes. The water would be pumped from the islands and rediverted for other uses.

PROJECT SCHEDULE: Draft Environmental Impact Report/Environmental Impact Statement was distributed in 1990. The revised Draft Environmental Impact by the State Water Resources Control Board is under review.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

EAST BAY MUNICIPAL UTILITY DISTRICT WATER SUPPLY STUDY

LEAD AGENCY: East Bay Municipal Utility District

CVP SERVICE AREA: New Melones and Delta Divisions

PROJECT DESCRIPTION:

The results of the programmatic environmental impact report for the Updated Water Supply Management Program recommended the following actions for further study.

- Additional water conservation and reclamation measures in the East Bay Municipal Utility District service area.
- Additional water releases from Camanche Reservoir to protect anadromous fisheries.
- Improvements to the existing aqueduct system in the Delta to improve reliability.
- Groundwater banking and conjunctive use program with local irrigation districts in the vicinity of Lodi.
- Extend Folsom-South Canal Project to connect the existing Folsom-South Canal to the Mokelumne Aqueduct.

PROJECT SCHEDULE: The water conservation program, reclamation program, aqueduct security system and fishery protection program is scheduled to be implemented by the mid-1990s.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Mike Goldberg, East Bay Municipal Utility District, Personal Communication.

FRESNO-CLOVIS WATER RESOURCES MASTER PLAN

LEAD AGENCY: City of Fresno

CVP SERVICE AREA: Friant Division

PROJECT DESCRIPTION:

The City of Fresno has a contract with Reclamation for 60,000 acre-feet of Class I Friant Unit water. Historically, the City has used a portion of this water for groundwater recharge. The remainder has been used conjunctively with Fresno Irrigation District for use in agricultural irrigation. In recent years, the City has used most of the contract amount for groundwater recharge.

In 1991, a water resources management plan for the Fresno-Clovis metropolitan area was initiated under the joint sponsorship of the City of Fresno, the City of Clovis, Fresno Irrigation District (FID), Fresno Metropolitan Flood Control District, and Fresno County. Under the proposed plan, the City of Fresno will be using treated surface water from its CVP contract as a replacement for contaminated groundwater and as a source of supply in areas of insufficient groundwater supply. The result is that in the future, the City of Fresno will be taking delivery of the full amount under their contract. Part of this water could be treated for direct use, and the remainder will be recharged to groundwater. Treatment and transmission facilities must be constructed before direct use can be implemented.

PROJECT SCHEDULE: Complete Phase I treatment plant and transmission design in 1995. Surface water treatment and transmission facilities on line in 1997.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Yes. Water now delivered to FID on an irrigation schedule will be delivered to the City of Fresno on an M&I schedule.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Fresno/Clovis Metropolitan Area Water Resources Management Plan, Phase 3 Report, Implementation Plan. 1992.

LOS VAQUEROS WATER QUALITY PROJECT

LEAD AGENCY: Contra Costa Water District

CVP SERVICE AREA: Delta Division

PROJECT DESCRIPTION:

The objectives of the project are to improve water quality, minimize seasonal water quality changes of delivered water, especially in late summer periods when salinity concentration rise in the Delta, and improve reliability of water supplies during extended emergencies. Contra Costa Water District has completed several water quality studies for the proposed reservoir project. Facilities to be included in the project are the Los Vaqueros Dam and Reservoir (a 200-foot high earthen dam and 100,000 acre-feet reservoir); Old River pumping plant and pipeline facilities (a 7 mile pipeline, 80 inches in diameter); a Transfer Reservoir and Pipeline (4 million gallon reservoir and a 5 mile, 70 inches in diameter pipeline); the Los Vaqueros Pipeline (9 miles, 100 inches in diameter); and relocation of Vasco Road and several utilities.

PROJECT SCHEDULE: Project under construction.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project under construction.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly. The diversion pattern will be different than historic diversion patterns.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Yes.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Yes.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Yes.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Yes.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? Yes.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? Yes.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? Yes.

SAN FRANCISCO BAY AREA AND SAN JOAQUIN VALLEY WATER REUSE PROJECT

LEAD AGENCY: City and County of San Francisco and U.S. Bureau of Reclamation

CVP SERVICE AREA: Delta Division

PROJECT DESCRIPTION:

The City and County of San Francisco (CCSF) began investigations into the collection, conveyance and reuse of reclaimed wastewater from the San Francisco Bay Area in 1981. In 1991 the City and County conducted an update of the original findings of the 1981 study. It was determined that the original alternatives recommended for reuse of Bay Area reclaimed water were no longer economically and environmentally feasible. Water quality limits for the discharge of treated wastewater to San Francisco Bay are regulated by the State Water Resources Control Board have become increasingly stringent. To meet these limits, Bay dischargers would produce a reclaimed water of a very high quality and value that could be put to other uses. The City and County determined that the effluent would be of adequate quality for all types of irrigation, but it would be cost prohibitive to reuse the water within developed areas because of the complex infrastructure needs and the large volume potentially available, 400,000 acre-feet per year could not be utilized within existing developed areas. Therefore an alternative was developed to convey the reclaimed water to agricultural areas in the San Joaquin Valley. The reclaimed water would replace a portion of the CVP water supplied to farmers within the Delta Mendota Canal Unit. The non-diverted CVP water could then be made available for other uses, such as to meet Delta water quality.

PROJECT SCHEDULE: 1991 starts update of 1981 study.
1991 Reclamation prepares Plan of Study for Project.
1993 CCSF develops funding mechanism for Cooperating Agencies to complete future feasibility studies.

PROJECT STATUS AS OF OCTOBER 30, 1992: CCSF is working with local Bay Area water and wastewater agencies to develop a Cooperating Agency group to provide funding and project development input to the project.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA ? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No

UPPER AMERICAN RIVER PROJECT

LEAD AGENCY: Sacramento Municipal Utility District and El Dorado County Water Agency

CVP SERVICE AREA: American River Division

PROJECT DESCRIPTION:

This project is the latest version of proposed hydroelectric facilities being proposed on the Upper American River. The previous projects proposed consisted of the South Fork American River Project (SOFAR) and the Alder Creek Project. The proposed project would consist of expanding the existing Upper American River Project by adding the Jones Fork hydroelectric power plant, the Iowa Hill pumped-storage facility, the South Fork diversion, and the Lower Ice House Reservoir. The Lower Ice House Reservoir would have a proposed capacity of up to 30,000 acre-feet. The water would be used by El Dorado County Water Agency for water supply purposes on an as-needed basis during times of drought. The proposed Jones Fork facility would include a 35-MW hydroelectric power plant enabling SMUD to increase operational flexibility and meet peak electrical emergency demand. The Iowa Hill facility would include a 250 MW pumped-storage facility.

PROJECT SCHEDULE: Design scheduled to be complete in 1998.

PROJECT STATUS AS OF OCTOBER 30, 1992: Project ongoing.

WILL THE PROJECT IMPACT CVP OPERATIONS? Possibly.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR DESIGN WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL AUTHORIZATION FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

DOES THE PROJECT HAVE INITIAL FUNDING FOR CONSTRUCTION WITHOUT CVPIA? Not applicable.

HAVE FINAL ENVIRONMENTAL DOCUMENTS BEEN FILED? No.

HAVE ALL ENVIRONMENTAL PERMITS AND APPROVALS BEEN ISSUED? No.

INCLUDE PROJECT IN NO-ACTION ALTERNATIVE? No.

REFERENCES: Sacramento Municipal Utility District. Description of Proposed Project Exhibit 1. 1992.